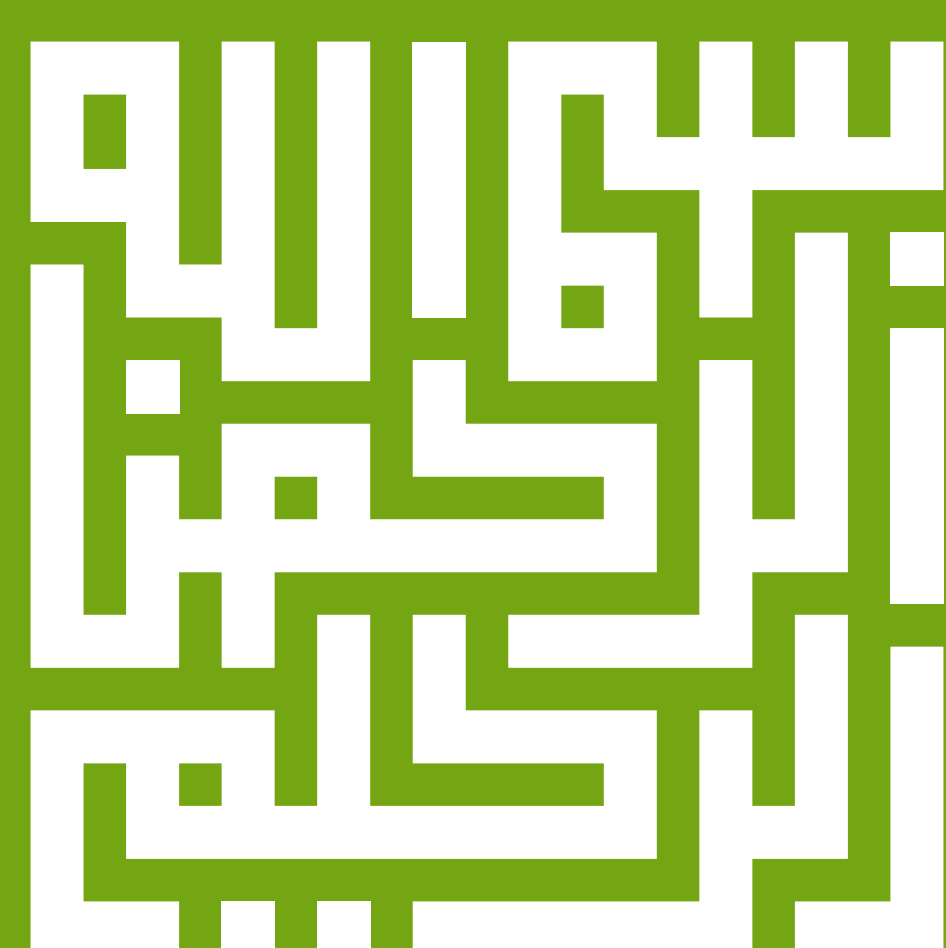


# Annual Report

2022

1442-1443H

**Enable to Manufacture**







The coming years will be full of important achievements aimed at enhancing the role of the industrial and service sectors in the national economy.

The Custodian of the Two Holy Mosques

**King Salman bin Abdulaziz Al Saud**

(May Allah protect him)





Together, we will continue building a better country, fulfilling our dream of prosperity through sponsoring the talent, potential, and dedication of our young men and women.

His Royal Highness

**Prince Mohammed bin Salman bin Abdulaziz Al Saud**

(May Allah protect him)

Crown Prince, Deputy Prime Minister, Minister of Defense



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01

# About SIDF

Towards a Pioneering  
National Industry



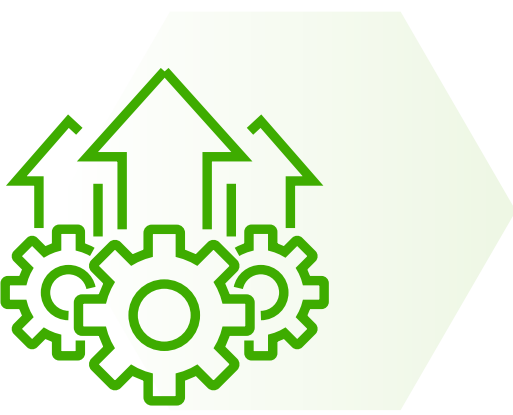




# SIDF Profile

The Saudi Industrial Development Fund (SIDF) was established in 1394H (1974) with an initial capital of SR 500 Million with the vision of providing financial enablement to the industrial sector in the Kingdom of Saudi Arabia. This capital was gradually lifted to reach SR 105 Billion in 1440H (2019). For 47 years, SIDF has provided industrial support across a variety of sectors through industrial investment opportunities, strengthening the local industry, enhancing its performance, boosting competitiveness, sustaining strategic initiatives, and expanding the reach of its support to cover a number of promising sectors in the areas of industry, manufacturing, energy, mining, and logistics. As such, SIDF has become the primary financial enabler for industrial transformation in Saudi Arabia. In 2021, SIDF has been relocated to its new headquarters in the King Abdullah Financial District in Riyadh, thus initiating a new era based upon greater confidence and readiness to further develop and grow the national economy.

SIDF provides financial and advisory support and offers innovative solutions to develop and improve local industry and its performance, with the aim to achieve the following strategic objectives:



Increasing the efficiency and performance of facilities and achieving sustainability



Support local content



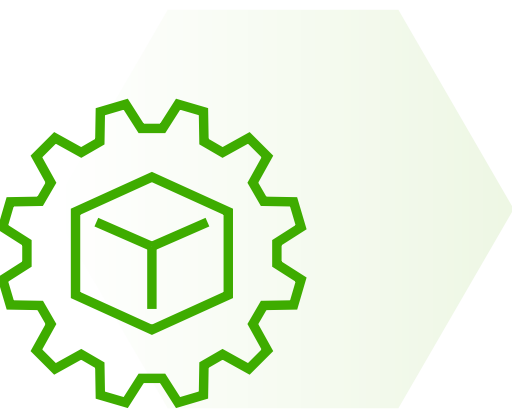
Promote non-oil exports



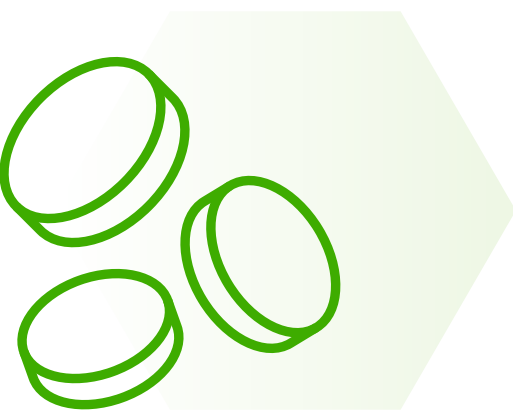
Integrate the industrial sector with other sectors



Increase the participation of Saudi talent in the industrial sector



Optimize the utilization of local raw material



Attract the foreign capital and localize the technology



Raise a culture of industrial safety and risk prevention in industrial facilities



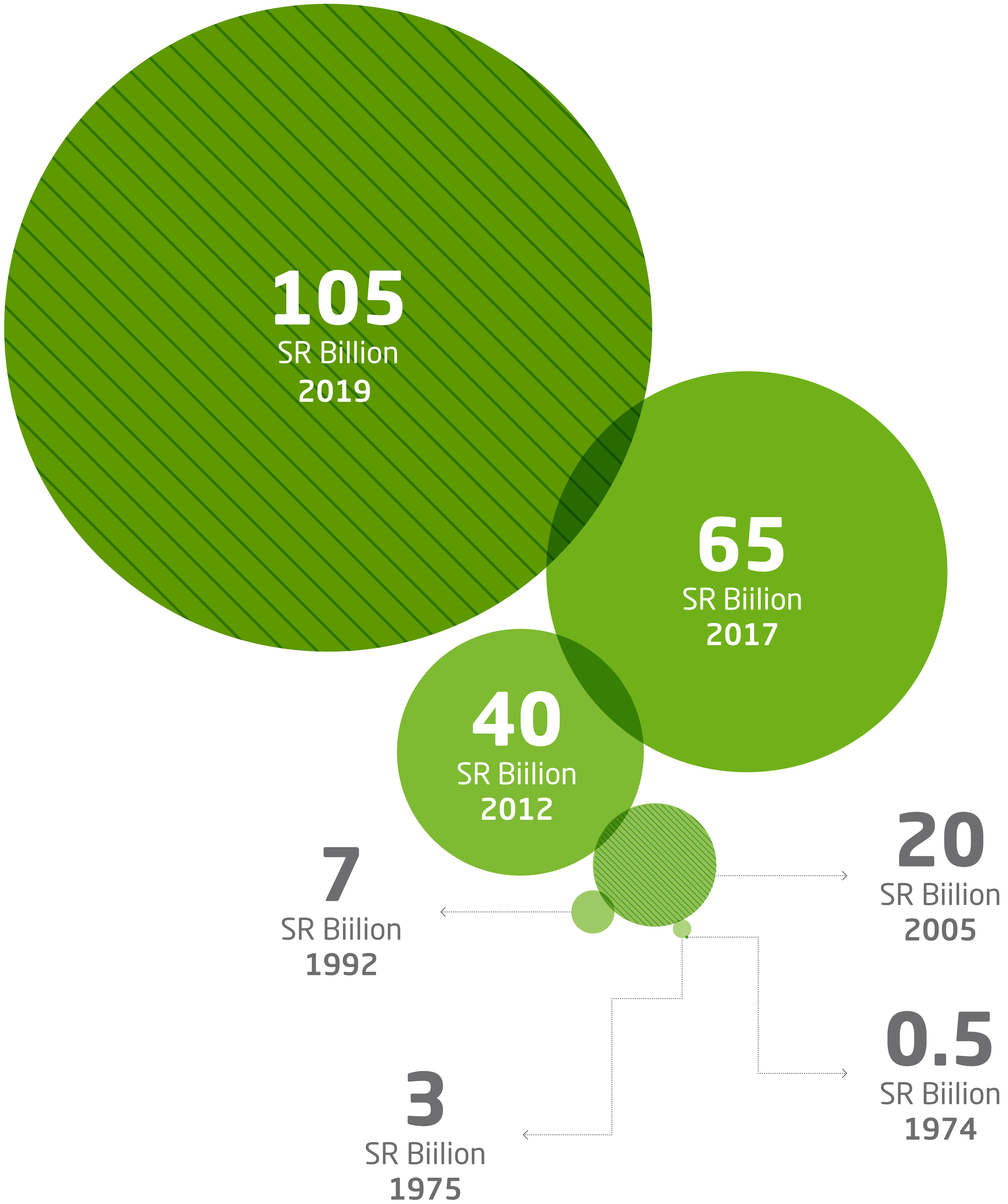
Raise environmental awareness in the industrial sector







## SIDF Capital Growth







# Vision

Industrial development fund enabling Saudi Arabia's transformation to become an industrial powerhouse and a global logistics hub.

# Mission

Enhance ecosystem competitiveness and investments attractiveness by providing financial and non-financial offerings.

# Role

The financial partner developing industry, stimulating jobs, prosperity and growth for Saudi Arabia.

# Values



## Client's Success

We support our clients to succeed as we measure our success by theirs.



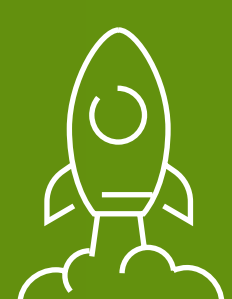
## Enablement

We enable others to take ownership of the work we do and the outcomes we are trying to achieve together.



## Team Work

We work as part of a team to achieve the growth, development and prosperity of our country.



## Development

Development is at the core of our business. It underpins everything we do.



## Reliability

We show reliability in our work and all decisions taken.



# Board of Directors



The SIDF Board of Directors, consisting of a chairperson and five members has several functions, including:

- ✓ Sets SIDF's general policies
- ✓ Approves strategies, plans, and programs for implementation.
- ✓ Oversees administrative, financial, and technical regulations and procedures.
- ✓ Approves lending and financing activities, the ownership, selling, and mortgage of property, and the conclusion of agreements and contracts in accordance with statutory procedures.
- ✓ Carrying out other functions and duties to ensure that SIDF goals and objectives are consistently met.



## Board of Directors



**H.E. Mr. Bandar bin Ibrahim Alkhorayef**

Minister of Industry and Mineral Resources  
Chairman of the Board of Directors



**H.E. Eng. Saleh bin Nasser Al-Jasser**

Minister of Transport and Logistics Services  
Board Member



**H.E. Dr. Ghassan bin Abdulrahman Al-Shibl**

Adviser to the General Secretariat of the Council of Ministers  
Board Member



**Mr. Stephen Grove**

National Development Fund's Governor  
Board Member



**Dr. Abdulrahman bin Mo'ayyad Al-Qurtas**

CEO of the National Industrial Development Center  
Board Member



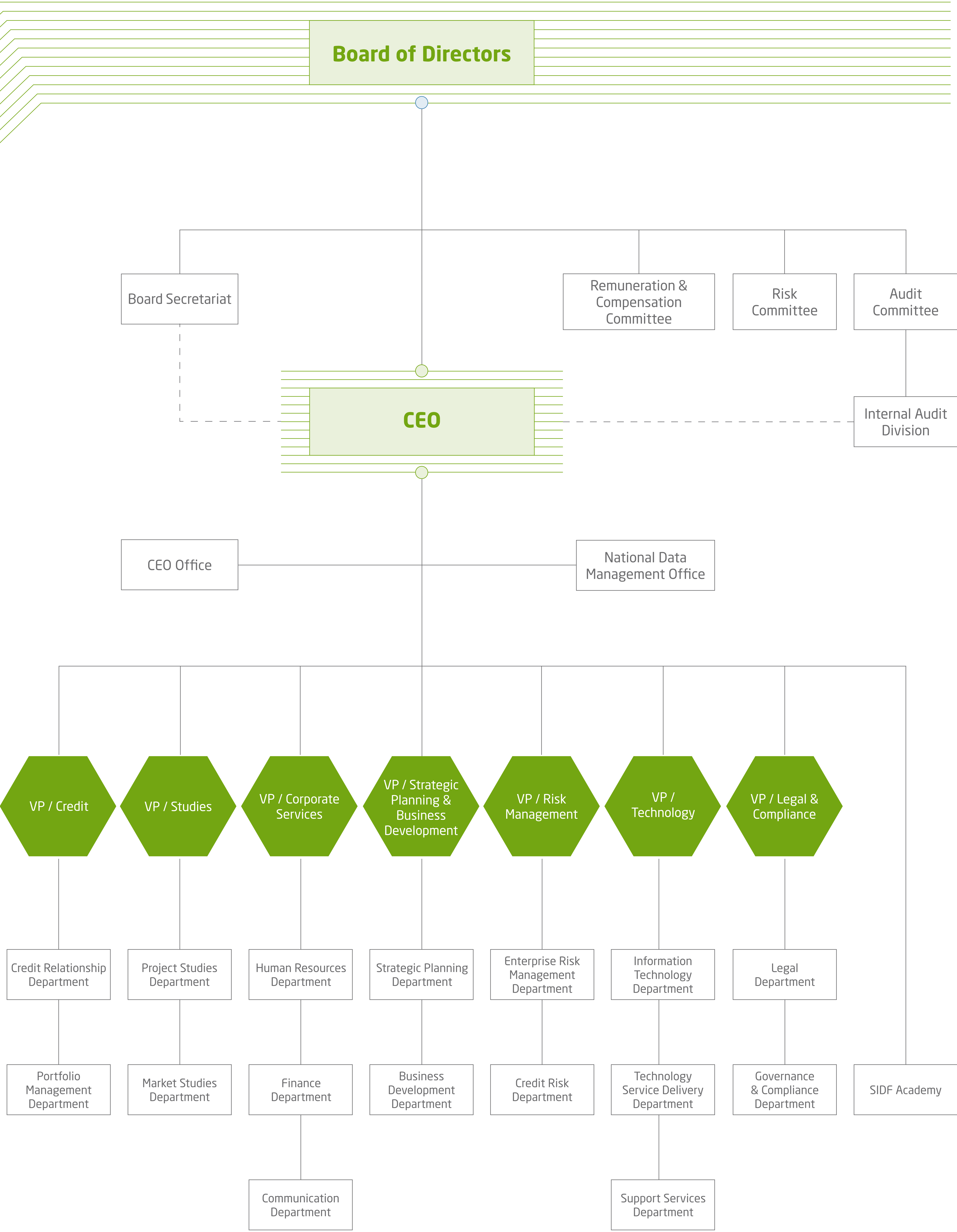
**Dr. Abdullah bin Abdulrahman Alnamlah**

Adviser to the Minister of Finance  
Board Member





# Organizational Structure







# Chairman's Message

Mr. Bandar bin Ibrahim Alkhorayef



Since the launch of the Vision in 2016 and until 2021, the SIDF approved 869 loans worth SR 69 Billion; 40% was allocated to promising regions and cities and 79% to SMEs in terms of the number of loans.

The SIDF continues to play a leading role in backing the industrial resurgence in the Kingdom and carrying out its development responsibilities that have contributed, for over 47 years, to promoting industrial investment opportunities, growing local industry, and enhancing performance through numerous initiatives and programs that have led to achieving a number of strategic national objectives in support of economic development.

As the chief financial enabler of the National Industrial Development and Logistics Program (NIDLP), the SIDF played, in 2021, a pivotal role in supporting investors in the sectors of industry, energy, mining, and logistics. The SIDF helped accelerate the overall recovery from the COVID-19 pandemic. It advanced its ambitious development plans, upgraded its internal work mechanisms, and diversified its products, services, and programs to contribute to the development of promising national enterprises.

Despite the exceptional circumstances that impacted the world in 2020, the SIDF maintained its endeavors and full commitment to achieving the objectives of Saudi Vision 2030 and empowering the private sector. This was reflected in the statistics monitoring the results of the SIDF's work from the launch of the Vision in 2016 to 2021. During this period, the SIDF approved 869 loans worth more than SR 69 Billion; 40% was allocated to promising regions and cities, and 79% to SMEs in terms of the number of loans. In other words, the volume of loans disbursed and approved since the launch of the Vision is more than the volume of loans disbursed and approved throughout the SIDF's first 34 years. In 2021, the SIDF disbursed more than SR 10 Billion to its clients, marking the highest disbursement ever made by the SIDF since its inception, and approved 117 loans, valued at SR 11.1 Billion. Financing during 2021 targeted, for the first time, qualitative projects in sectors such as electric cars, blue hydrogen, and casting and polishing iron. This is in addition to launching a product to finance supply chains, the Land and Logistics Loan Program, and a consultancy services product. In parallel, the SIDF focused on enhancing its human resources and that of the industrial sector in general, through its academy, which has provided over the past year numerous training programs and workshops. Also in 2021, the SIDF moved to its new building at the King Abdullah Financial Centre to enhance its presence as one of the most important development entities in the Kingdom.

In conclusion, I pay tribute to the Custodian of the Two Holy Mosques, King Salman bin Abdul Aziz, and Crown Prince, Deputy Prime Minister, and Minister of Defense, HRH Prince Mohammed bin Salman. I am very grateful for their constant attention to the industrial sector and the different entities regulating it, and for their guiding directives that have fostered the sustained growth of the SIDF. I also extend my gratitude to my colleagues on the Board of Directors and SIDF employees for their outstanding efforts that have helped us achieve continued success and the results of which we are all proud.

**Bandar bin Ibrahim Alkhorayef**

Minister of Industry and Mineral Resources  
SIDF Chairman of the Board of Directors







## CEO's Message

Dr. Ibrahim bin Saad Al-Mojel



**In support of the Kingdom's digital transformation process, the SIDF has increased the number of loans in this field by 38%.**

**The SIDF Academy offered 36 training programs to more than 4,300 trainees from 300 governmental and private entities.**

Over the course of 47 years, the SIDF played a pivotal role in empowering national industry through the provision of financing and advisory products and services. This role was expanded to contribute to the achievement of the objectives of Saudi Vision 2030, as the Fund became, in 2019, the chief financial enabler of the NIDLP and expanded its activity to include the industrial, mining, energy, and logistics sectors.

After a challenging year for the Kingdom's economy, which saw various sectors affected by the economic impact of COVID-19, the SIDF has been pivotal in enabling the recovery of the national economy, promoting private sector investment, and supporting it to overcome the impact of the pandemic. By this, the SIDF complemented its efforts to provide financing and advisory support to its clients in various sectors.

In 2021, the SIDF launched several programs, products, and initiatives aimed at empowering the private sector at the financial and advisory levels. It also launched the Saudi Advanced Manufacturing Hub (Saudi AMHUB) in collaboration with the World Economic Forum. Moreover, the SIDF upheld its efforts to improve its customer experience through automation of operations and electronic approval of loans, mortgages, and promissory notes.

The digital transformation journey has contributed to increasing the number of approved loans by 38%, boosted the capacity to process and study loans threefold, reduced the duration of procedures to receive loans by 53% from 11 months to just 5 months, and shortened the duration of contract signing from three weeks to less than three days after activating electronic signature.

The SIDF Academy has been instrumental in training and developing national cadres in 2021 by delivering 36 academic programs in collaboration with 13 of the most renowned training and educational entities, benefiting more than 4,300 trainees from over 300 entities in the public and private sectors.

Finally, I extend my sincere appreciation and gratitude to HRH King Salman Bin Abdul Aziz and Crown Prince Mohammed Bin Salman for their continued support of the SIDF orientation and aspirations. I am also pleased to thank the SIDF Board of Directors, my colleagues in the SIDF, and all those who have worked with us and supported us from the public and private sectors in the fields of industry, mining, energy, and logistics, ultimately enabling this long-standing national powerhouse to move forward with achieving national development ambitions.

**Ibrahim bin Saad Al-Mojel**

Chief Executive Officer  
Saudi Industrial Development Fund

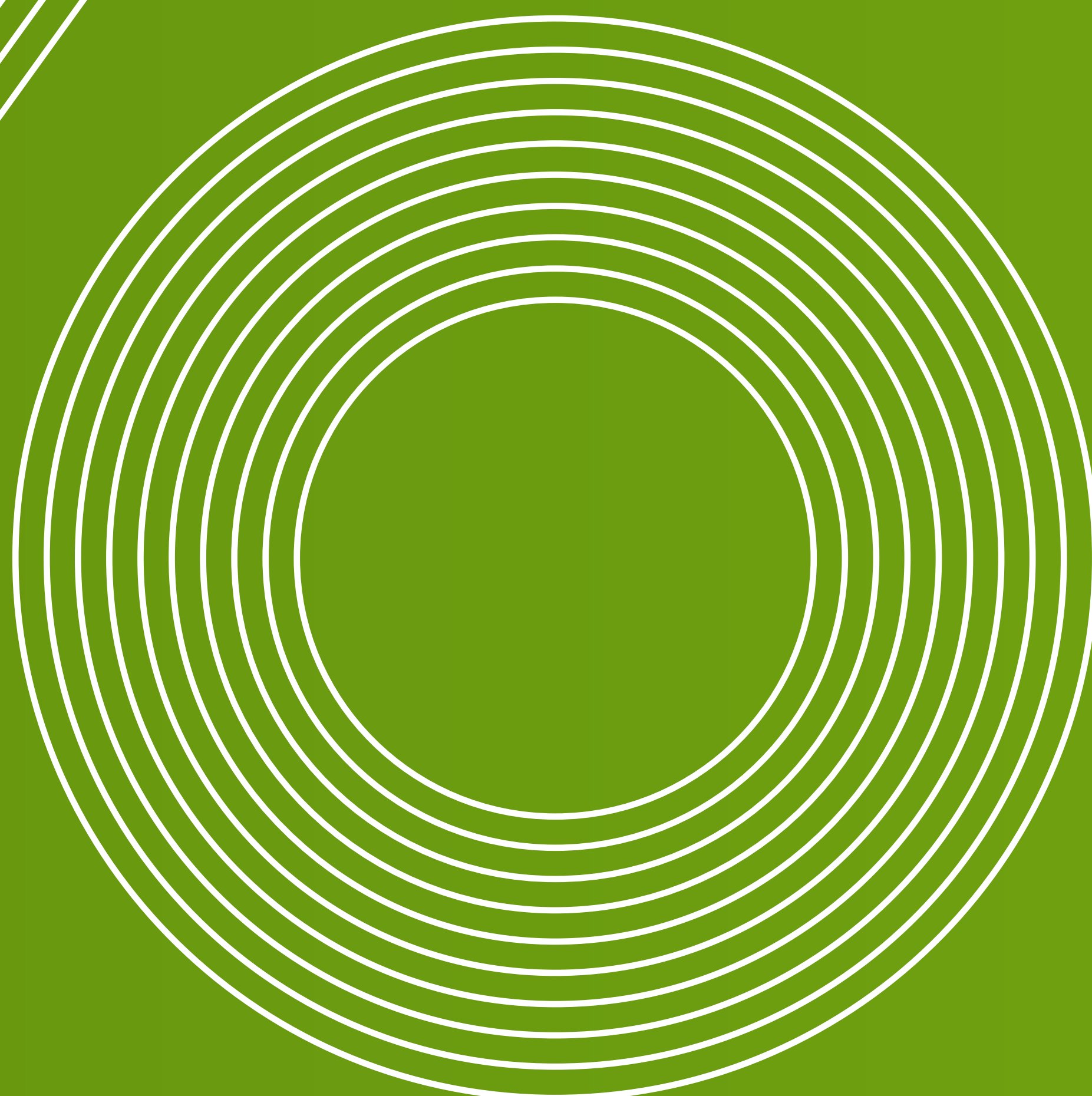
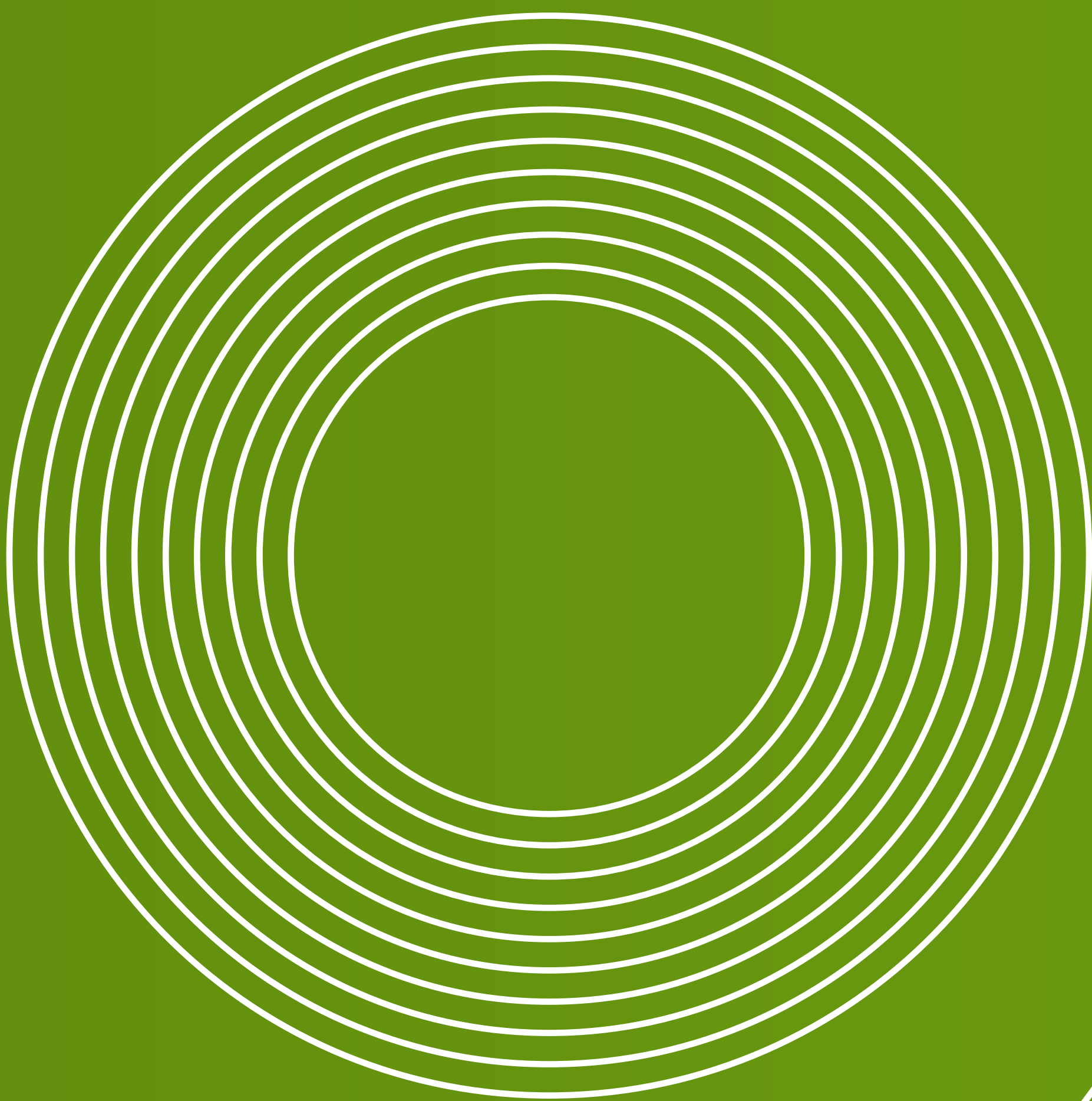




02

# 2021 Highlights

Facts with Promising Figures





# 2021 Highlights

During the past year 2021, SIDF has achieved an important development in its performance. It is highlighted by set of facts and figures that reflect SIDF performance and achievements in the various vital activities and roles entrusted to it. Most notably:

## First: Lending Activity

### Approved Loans



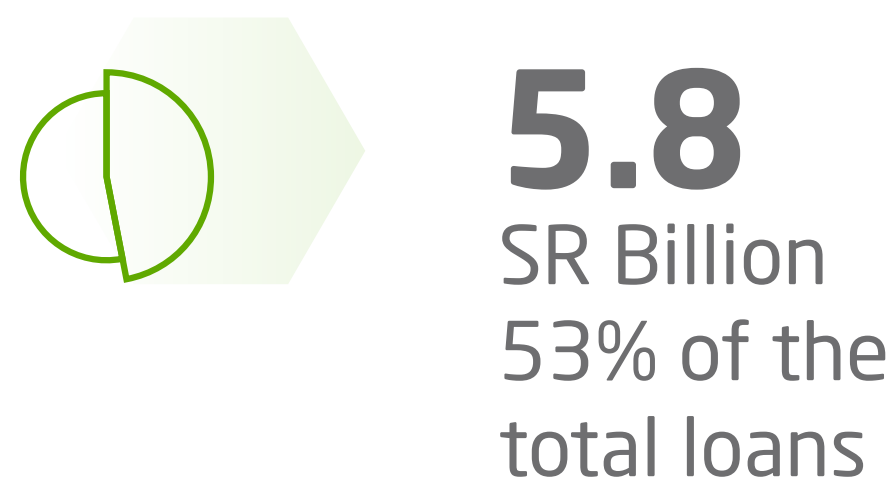
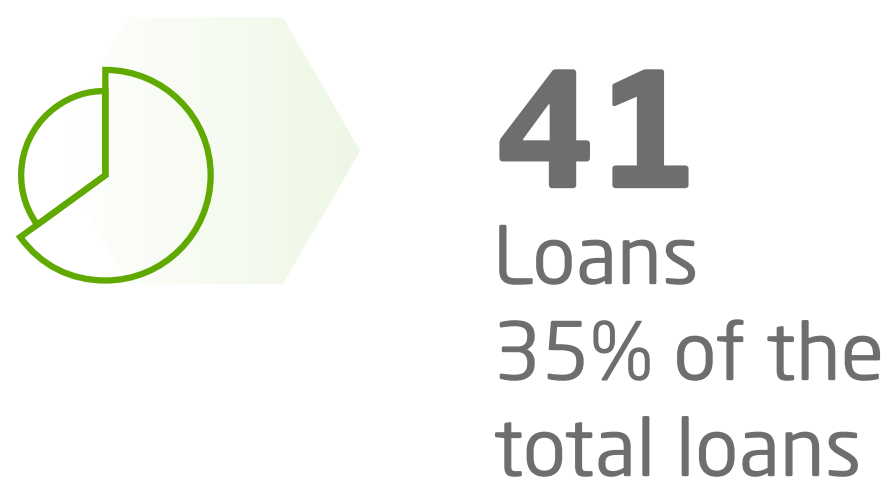
### Disbursed Amounts



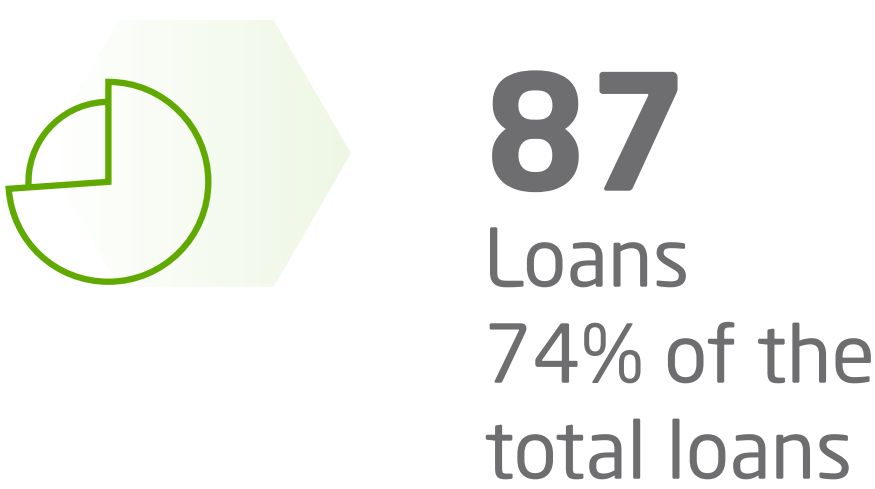
### Repaid Amounts



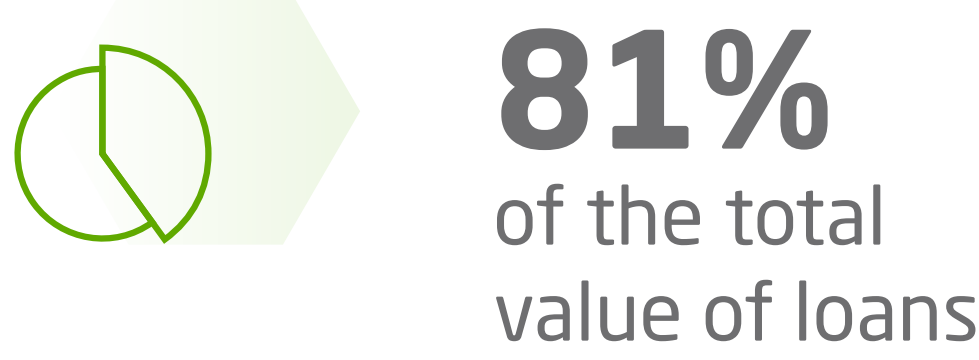
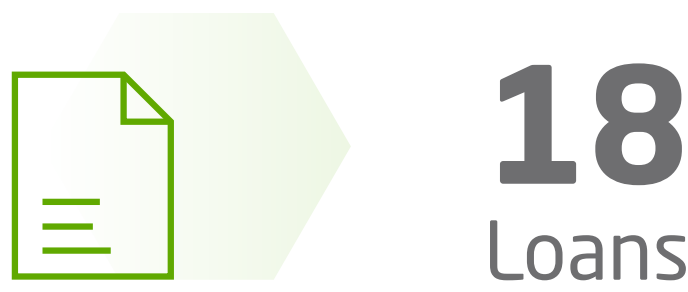
### Loans for promising regions and cities



### Small and Medium Projects



### Foreign and Joint Projects



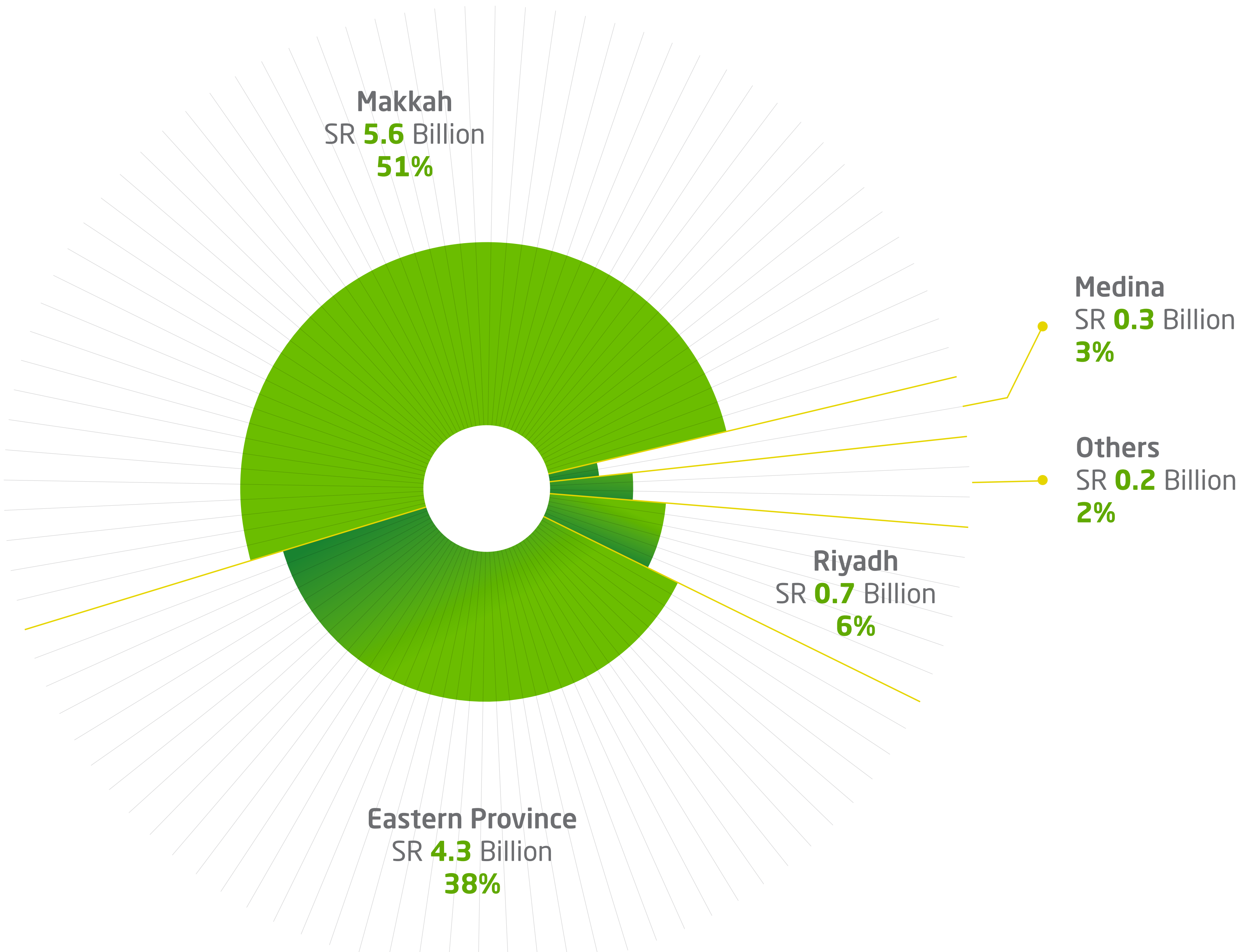
### Projects that Started Production During 2021



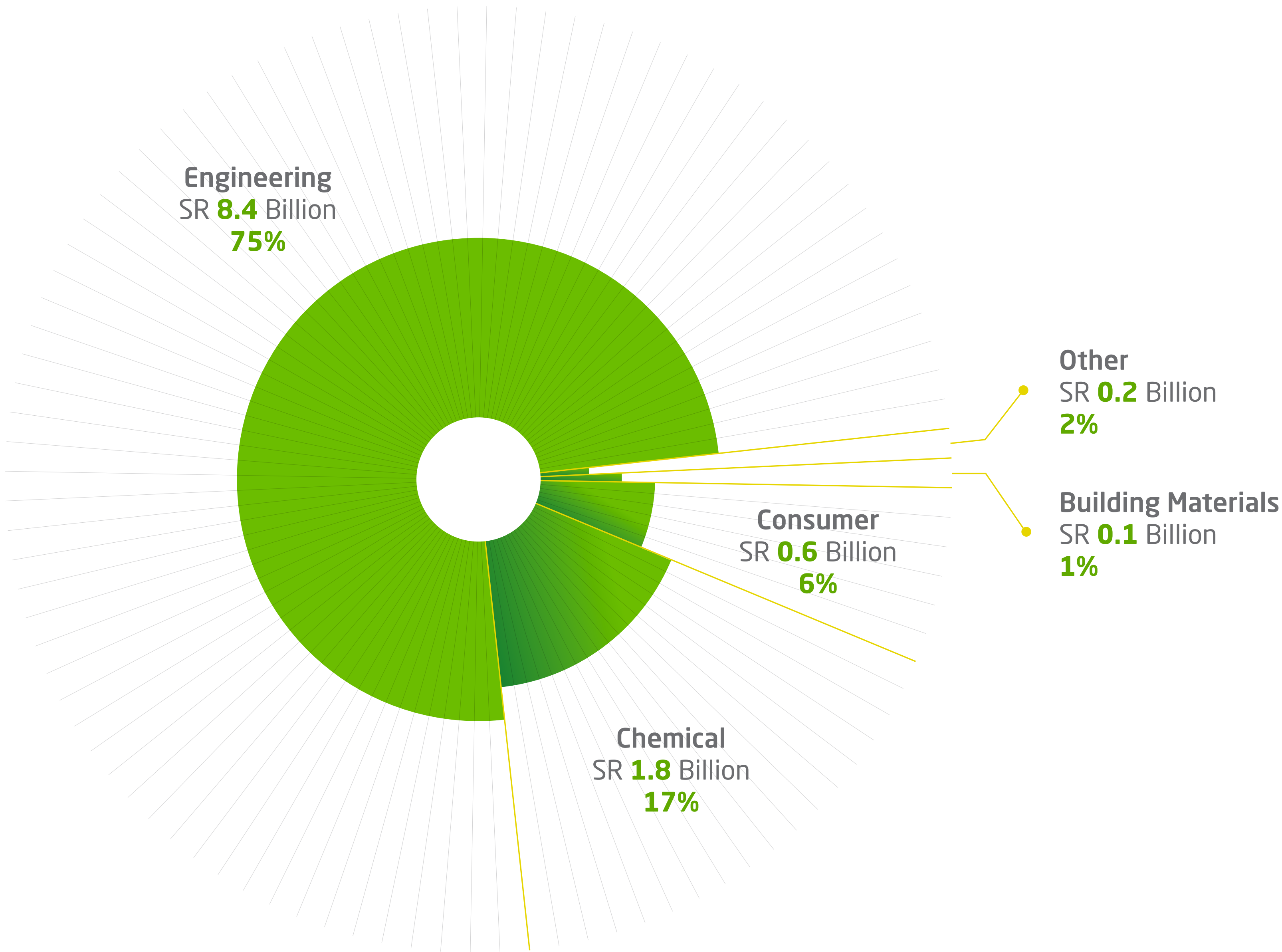




## Geographical distribution of the value of approved loans



## Sectoral distribution of the value of approved loans



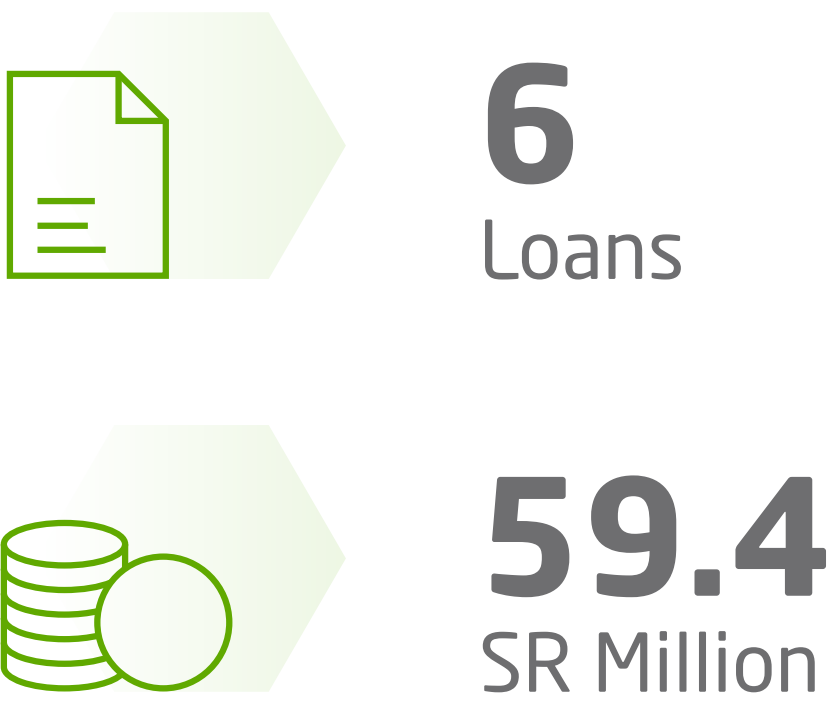




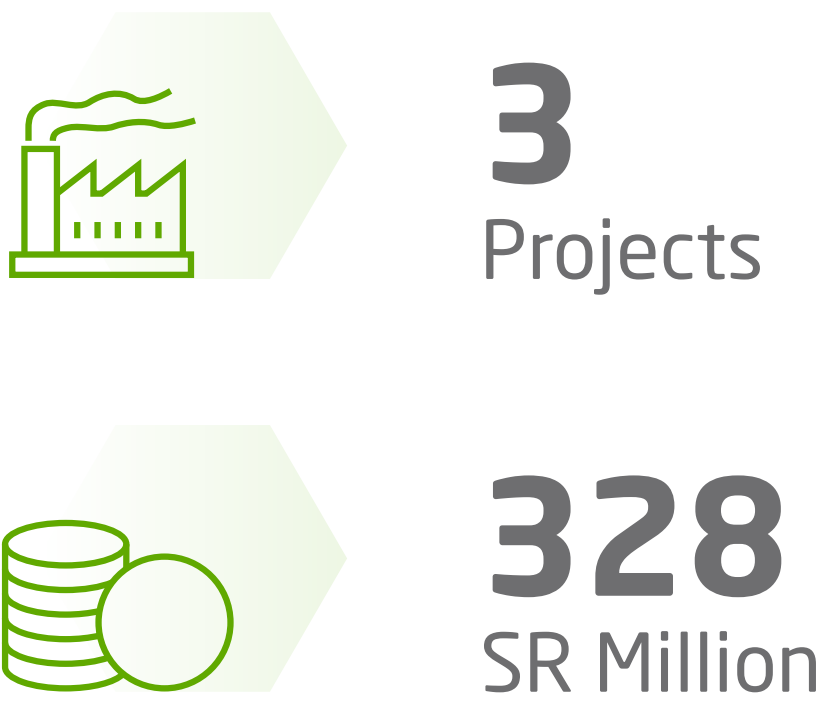
## Second: Programs and Financing Products

### Financing Programs

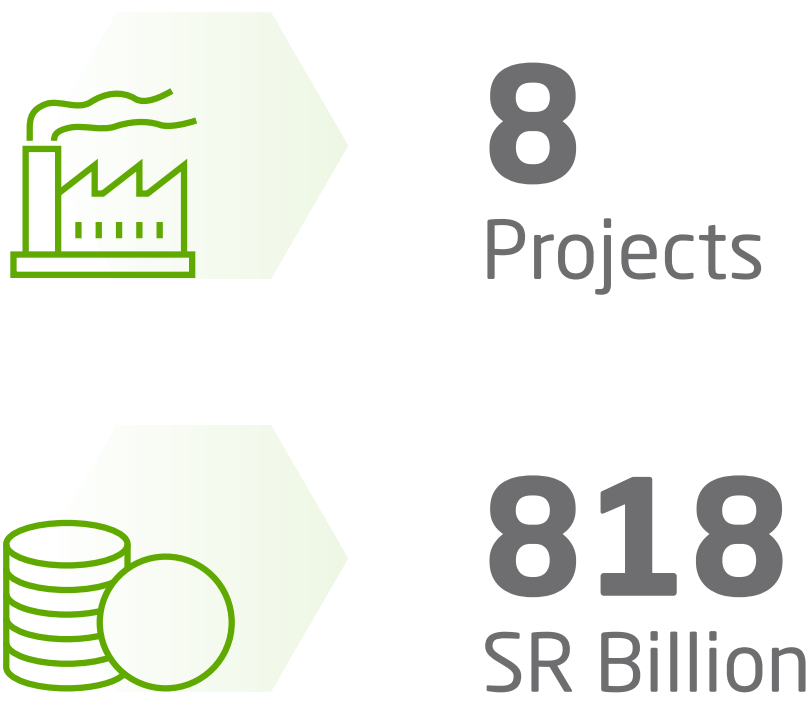
#### Land and Loan Program



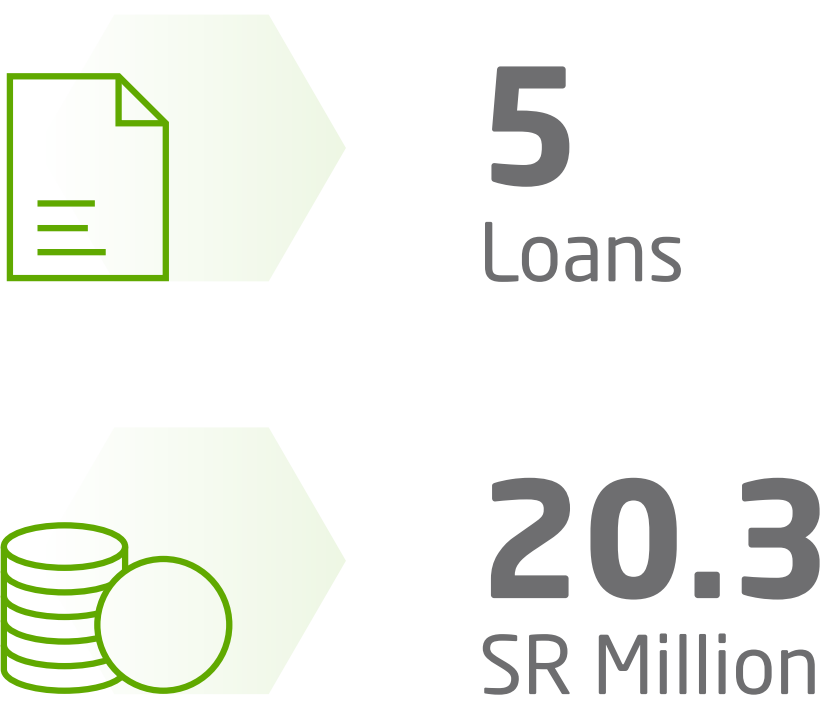
#### Tanafusiya Program



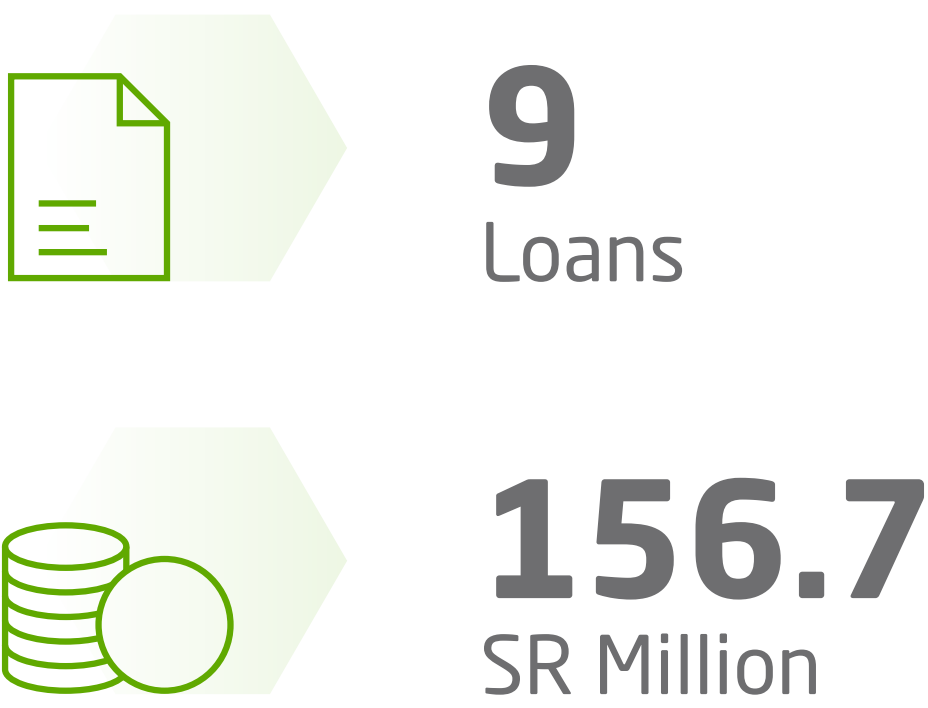
#### Tawteen Program



#### Mutajadedda Program

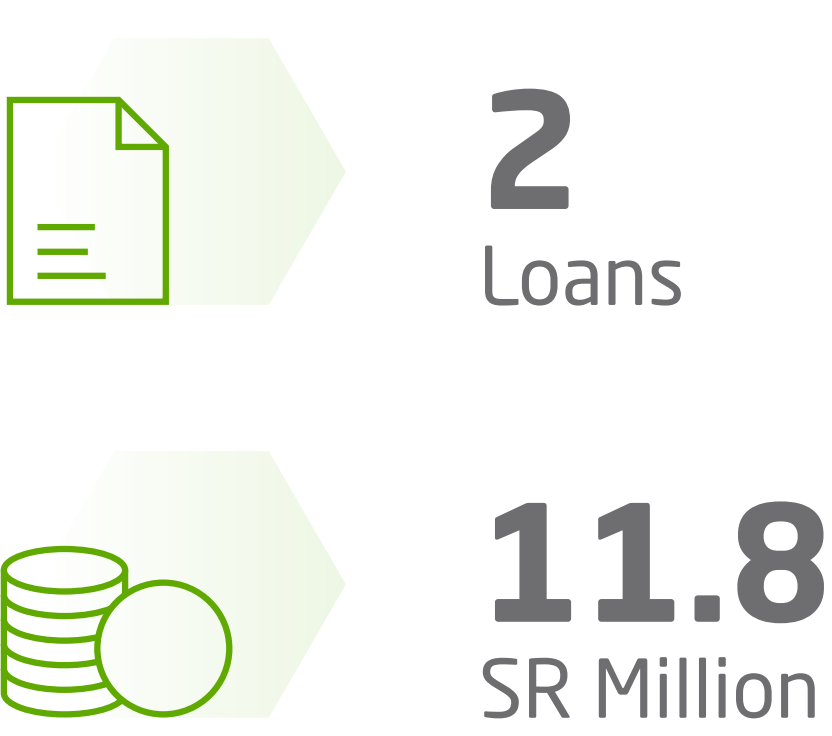


#### Afaq Program

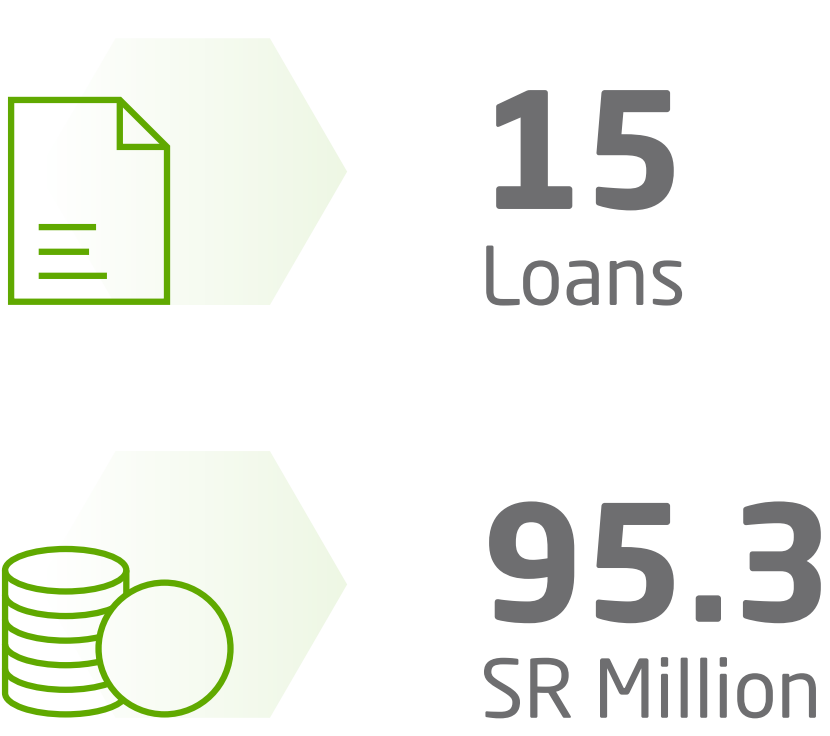


### Financial Products:

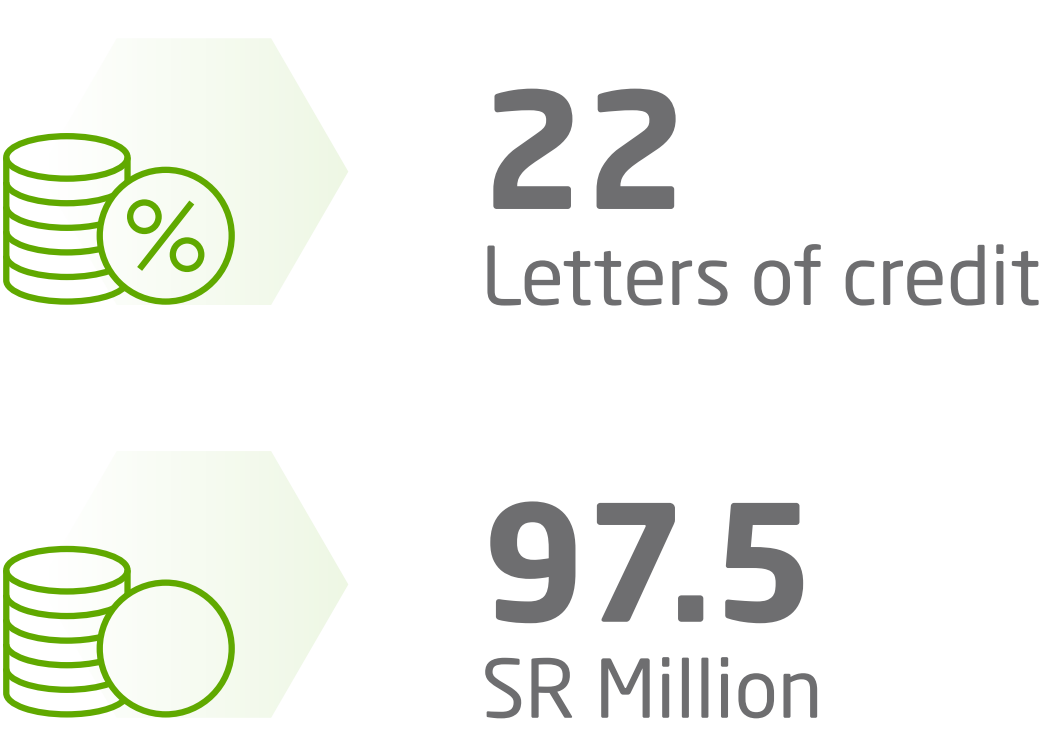
#### Multipurpose Finance



#### Working Capital



#### Letters of Credit with Local Banks





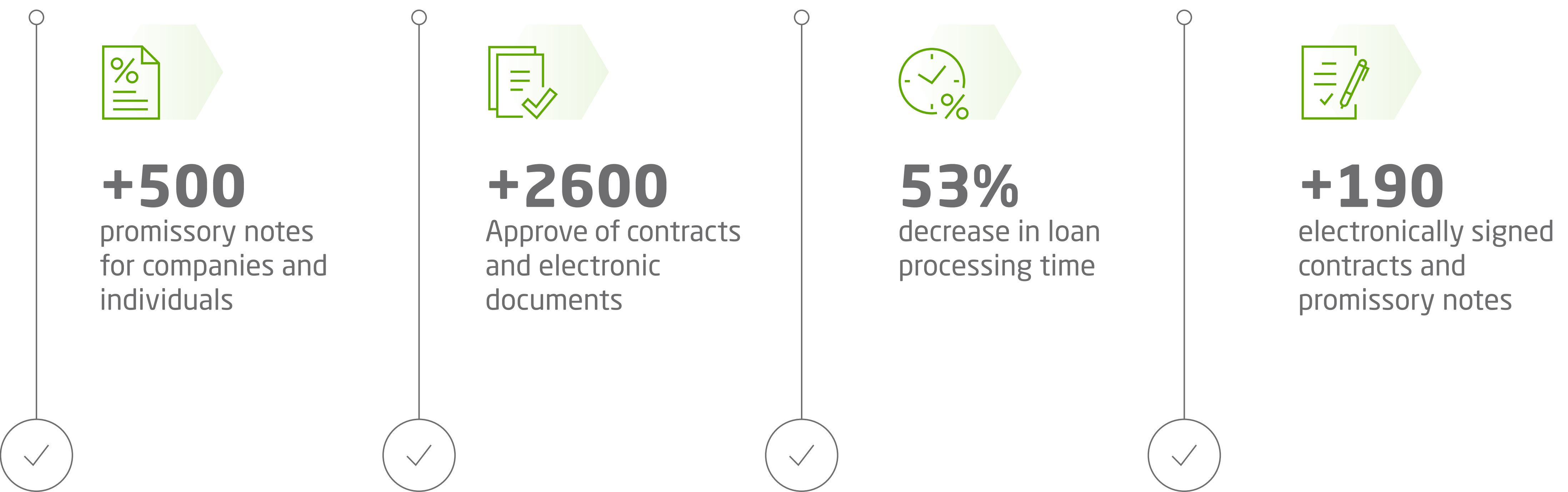


### Third: Digital Transformation

SIDF achieved the ninth place in digital transformation (2021)



#### Tamkeen System

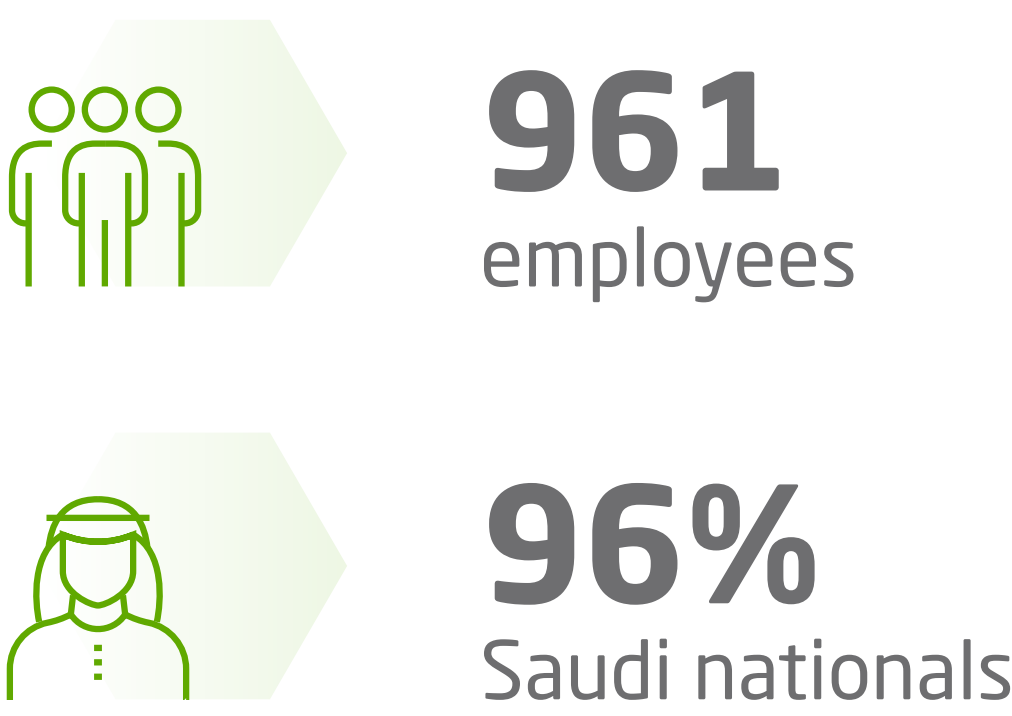


### Fourth: Human Capital Development

#### SIDF Academy



#### SIDF Employees



#### Talents Recruitment





03

# Trends and Indicators of the Local Economy

Promising Growth and Development







## KSA Economic Review for the year 2021

The COVID-19 pandemic continues to disrupt the global economy. However, the end of 2021 saw the start of the economic recovery phase following measures imposed by countries to overcome this crisis, namely, the easing of precautionary measures and restrictions on certain economic activities and the availability of vaccines, etc., which have positively reflected growth rates in global economies. The International Monetary Fund (IMF) projected that the global economy would grow by 5.9% in 2021.

**W** The local economy witnessed a recovery at the level of various economic sectors.



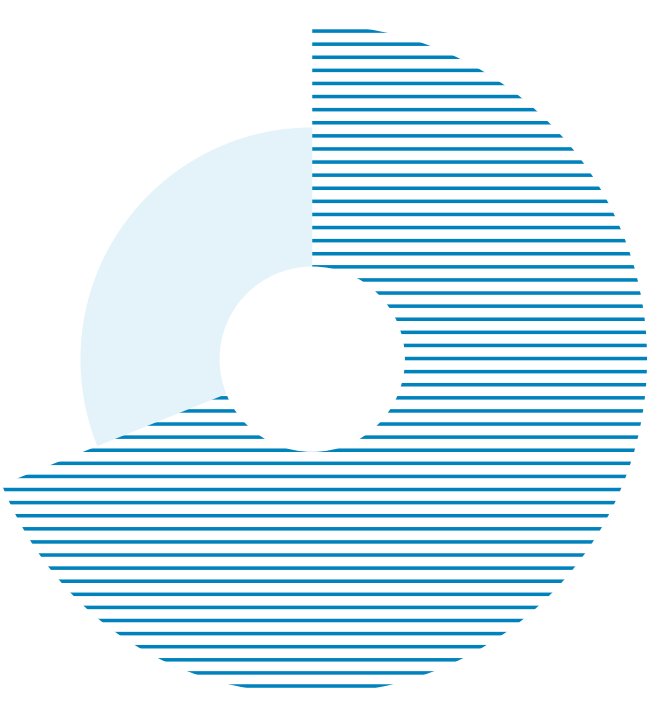


In parallel with the gradual recovery of the global economy, the local economy has recovered at the level of diverse economic sectors, bolstered by the Kingdom's rapid response to the COVID-19 pandemic since its onset by managing the consequences of the health crisis. The Kingdom also imposed a multitude of measures and reforms issued by government entities to mitigate the expected effects of the pandemic and ensure the local economy's stimulation and return to positive economic growth. In turn, this will help economic activities bounce back, including those of the private sector. According to the General Authority for Statistics (GaStat), the GDP grew by 3.2% compared to the previous year, reaching SR 2.614 trillion at constant prices. This is owed to the local economy's recovery and the return of economic activity to positive levels.

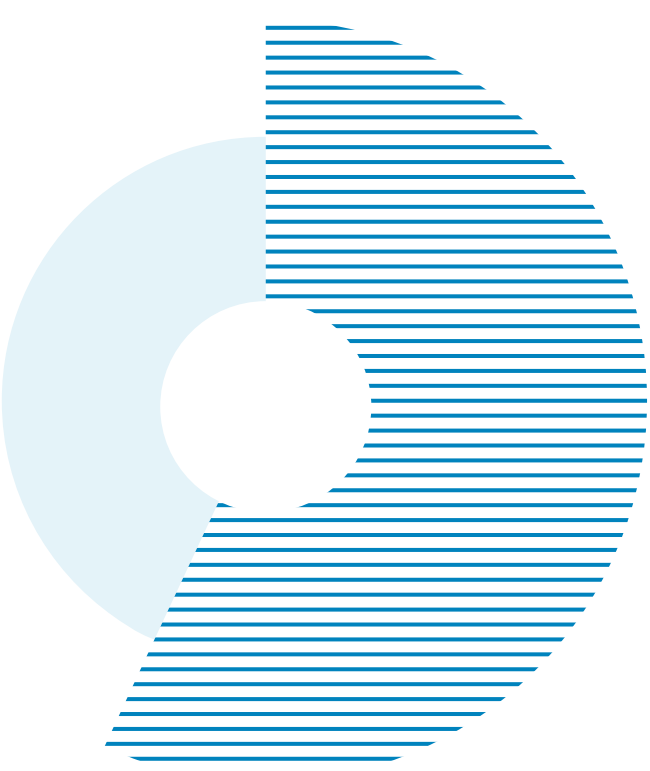
The average OPEC basket price rose by about 69% in 2021 compared to the previous year, as the oil sector inched up 0.2% compared to 2020, and the non-oil sector grew by 5% at constant prices, whereas its contribution to the GDP in 2021 slightly increased to about 57%.

The rise in the non-oil sector is due to the growth in many major economic activities. For instance, other manufacturing industries grew by 12%, wholesale and retail businesses and the restaurants and hotels sector are expected to grow by 9%, financial services, insurance services, real estate, and business services by 6%, and other mining and extraction activities by 6%, and electricity, gas, and water by 2%.

The year 2021 witnessed a slight decline in inflation levels compared to 2020, with GaStat data indicating an annual average consumer price index in 2021 of about 3.1%. This is partially owed to fading impact of the VAT increase that became effective in mid-2020.



**69%**  
Average OPEC basket price rise in 2021 compared to previous year



**57%**  
Non-oil sector's contribution to GDP for 2021

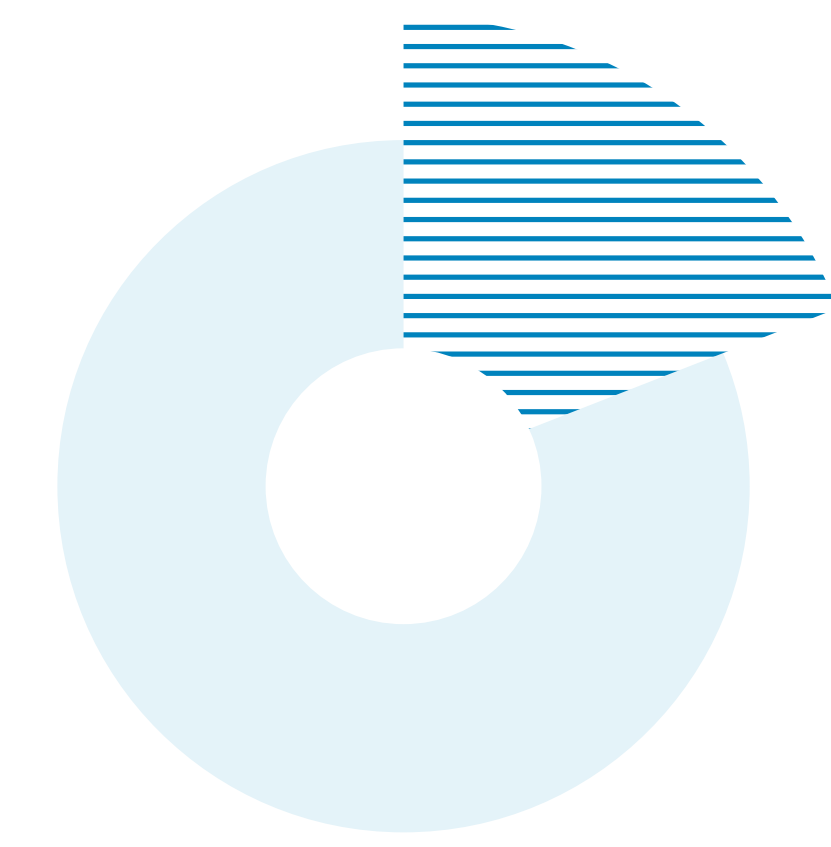
## W The value of non-oil commodity exports jumped 36% compared to the previous year.

The balance of payments current account, according to the preliminary estimates of the Saudi Central Bank, is estimated to record a surplus of SR 166 Billion by the end of 2021, compared to a deficit of SR 85 Billion for the same period last year. The trade balance at the end of 2021 achieved a surplus of SR 462 Billion, whereas the trade balance minus oil exports recorded a 6% decrease in the deficit by the end of 2021, reaching SR 295.6 Billion, down from about SR 313 Billion in 2020. The value of commodity exports in 2021 was about SR 1,035 Billion as oil exports boomed 69% to SR 758 Billion, and the value of non-oil commodity exports also jumped 36% compared to the year before to approximately SR 277.5 Billion. In addition, the value of commodity imports edged up 11% in 2021 compared to 2020, reaching approximately SR 573 Billion.





The actual state budget figures for 2021 recorded positive results thanks to economic and financial reforms provided by government sectors, the positive response of economic activities during the pandemic, as well as the improvement in oil prices throughout the year. Revenues grew 19% to SR 930 Billion compared to the previous year, whereas annualized expenditure decreased 5.6% to SR 1,015 Billion. The state budget recorded a deficit of about SR 85 Billion, and the ratio of public debt to GDP stood at about 29.2%. These results are the fruit of the Kingdom's efforts to implement measures supportive of the financial and economic sectors to ensure fiscal sustainability and to continue economic and structural reforms to promote economic growth and empower the private sector, achieve efficient spending, contain expected economic risks of the after-effects of the COVID-19 pandemic, and strive to overcome the current crisis. In terms of financial and monetary growth in light of the developments of the local and global economies, fiscal and monetary policies continued to take necessary measures to ensure an adequate level of liquidity that meets the national economy's requirements. At the end of 2021, the money supply (M3) recorded a growth of 7.4% to SR 2,308 Billion compared to the previous year. In 2021, the money supply by its narrow definition (M1) had risen annually by 5% compared to the previous year. Meanwhile, the money supply (M2) has increased by 4.9% compared to 2020.



The Kingdom's revenues in 2021 rose by 19%

## \\ Total credit for 2021 by commercial banks for economic activities in the private sector increased by 16% compared to last year.

As for the banking sector, commercial banks' capital and reserves increased by 11% at the end of 2021 to approximately SR 419.5 Billion. Commercial banks' total liabilities from the public and private sectors climbed 14.5% during the year to SR 2,609 Billion, and the volume of bank deposits grew annually by 8.3% compared to the year before. Regarding the role of commercial banks in supporting various economic activities, total credit by commercial banks for economic activities in the private sector in 2021 amounted to approximately SR 2,059 Billion, up 16% from last year. Credit details by subsidiary activities show the volume of bank financing to have increased for most economic activities, led by a 24% growth in the finance sector, followed by the trade sector by 16%, the water, electricity, gas, and health services sector by 12%, and the industry and production sector by 3%. In contrast, funding for some sectors, such as agriculture and fishing, and mining and mines, decreased by 15% each, and transport and communications were down by 5%.

On the other hand, the general index of the Saudi stock market gained 30% by the end of 2021, achieving 11,281 points, compared to 8,689 points at the end of 2020, marking the highest annual gain in 14 years. The total value of traded shares during 2021 amounted to about SR 2,236 Billion, compared to SR 2,088 Billion in 2020; That is, an increase of 7%, and the market value of the issued shares amounted to about SR 10 Billion; That is an increase of about 10% compared to last year. During the report year, the Saudi financial market witnessed an increase in financing and growth opportunities for companies and an increase in investment channels. Nine new companies were included in the market from the sectors of public utilities, transportation, food production, applications and technology services, media and entertainment, investment and finance, and food retail. While one company moved from the parallel market (Nomu) to the main market, bringing the total number of companies listed on the market to 210 companies by the end of the year. The market value of the companies that were offered and listed on the market amounted to about SR 117 Billion.





As part of strengthening the role of the financial market in the Saudi economy, 2021 saw the Saudi stock market join the FTSE Russell Government Bond Emerging Markets and the iBoxx Government Bond Index. In addition, the Capital Market Authority disclosed the strategic plan for 2021-2023, which aims - alongside the financial sector development program - to give rise to an advanced financial market, by deepening the financial market and enhancing its role in attracting capital, developing the market for sukuk and debt instruments, and promoting the role of funds in financing the local economy, in addition to growing asset management and institutional investment, raising market attractiveness, diversifying investment products, and improving trading mechanisms.

In the area of structural and organizational reforms, which aim to strengthen the structure of the economy, the year 2021 witnessed many reforms. The Ministry of Housing was merged into the Ministry of Municipal and Rural Affairs and renamed the Ministry of Municipal and Rural Affairs and Housing, the Ministry of Transport was also renamed the Ministry of Transport and Logistic Services, the General Authority of Zakat and Income and the General Authority of Customs were merged into a single body named the Zakat, Tax, and Customs Authority, and the Public Pension Agency was merged into the General Organization for Social Insurance. Similarly, the national program to support project management, operation, and maintenance in public entities was subsumed into the Center of Spending Efficiency

(CSE), and the CSE was transformed into the Expenditure and Project Efficiency Authority. The National Center for Digital Certification and the e-Government Program (Yesser) were both canceled and replaced by the Digital Government Authority, whose regulation was approved. The Yanbu, Umlaj, Al-Wajh, and Duba Development Authority was established and the National Center for Disease Prevention and Control was transformed into the Public Health Authority.

Several specialized laws have also been approved, including approving the establishment of SME Bank, the Private Sector Participation Law, the Cultural Development Fund Law, the Waste Management Law, the National Radioactive Waste Management Policy, the establishment of the National Center for Non-Profit Sector, and the National Rules of Origin. Furthermore, the transformation of the King Faisal Specialist Hospital and Research Center into an independent non-profit institution has been approved. In addition, the Capacity Building Development Program was launched, which is a program aimed to support achieving Saudi Vision 2030. In 2021, several development projects were also announced, including the Shareek (Partner) Program, the National Investment Strategy, the Line and Coral Bloom projects, and the Soudah Development Company. The National Transport Strategy, the Assir Region Development Strategy, the Historic Jeddah Revival project, the Rig project, and the announcement of Green Saudi Initiative and the Green Middle East Initiative have been launched.



## \\ The Kingdom enjoys a distinct credit rating at the global level despite the exceptional circumstances weighing on the world.

The Saudi economy has been lauded by a variety of global economic entities. The IMF commended the Kingdom's ability to manage the COVID-19 pandemic crisis distinctively, thanks to government efforts aligned with the directions of Saudi Vision 2030, the precautionary measures taken from early on to reduce the impact of the crisis, as well as supporting the local economy with stimulus packages, which helped mitigate the impact of the pandemic on economic sectors. The IMF has praised the economic, health, and social reforms that have yielded positive results, expecting the local economy to continue to bounce back from the effects of the pandemic, achieve growth with slowed inflation, and reduce unemployment rates. The IMF pointed to ongoing improvement in the areas of public finance, monetary policies, the financial sector, management of government spending, and Saudi women's participation in the workforce.

The Kingdom continues to enjoy a distinct global credit rating despite the exceptional circumstances weighing on the world. S&P ranked the Kingdom in September 2021 (A-) with a stable outlook, given the increase in Saudi Arabia's net assets. S&P expects the pace of growth recovery to increase over the next four years, driven by higher oil prices and the onset of the recovery phase from the effects of the pandemic. Meanwhile, Fitch Ratings ranked the Kingdom in July 2021 (A), adjusting its outlook from negative to positive, noting the Kingdom's continued commitment to regulating public finances and continuing structural reforms, as well as the overall improvement in oil prices, which reduced the fiscal deficit. Moreover, Moody's rated the Kingdom (A1) in November 2021 with a positive outlook, expecting the local economy to return to growth and the recovery of economic activities to continue as a result of improved performance of public finances and the reduction in the deficit in public finances and the level of debt volume in the medium term.

## \\ The Kingdom seeks to maintain the strength and durability of its economy.

In conclusion, the entire world continues to suffer from the repercussions of the COVID-19 pandemic on many levels, particularly economic sectors, which have been affected by the imposition of an array of measures that threw a wrench into the development wheel. Nonetheless, the Kingdom has been able to overcome several challenges that may affect the performance of the domestic economy through the government's rapid and determined response to economic constraints. This included implementing many initiatives and projects that made the economy more resilient to the impact of the pandemic. It is expected that the Saudi economy will continue to pursue economic and structural reforms to strengthen the local economy in all sectors. What was accomplished in 2021 under the brunt of the COVID-19 pandemic attests to the Kingdom's continued commitment to strive to maintain the strength and durability of its economy and ensure continued growth and sustainability of all economic sectors.



04

# SIDF Lending Activity

Effective Performance with  
Promising Achievements







# Lending Activity during 2021

The Fund continued its outstanding activity in the development of the local industrial sector, effectively while granting it a wide range of loans to support projects in various sectors in the Kingdom of the fiscal year 2021. The Fund’s performance this year was marked by a high percentage of loans approved by the Fund for industrial projects located in promising regions and cities; According to the facts and figures shown below:

2021			2020
117 Loans		Number of approved loans	212 Loans
SR 11.1 Billion		Value of approved loans	SR 17.6 Billion
SR 19.8 Billion		Total investments	SR 57.4 Billion
SR 10.1 Billion		Disbursed amounts	SR 4.6 Billion
SR 6.5 Billion		Repaid amounts	SR 3.3 Billion

## Distribution of approved loans for NIDL sectors



**11**  
SR Billion  
Industrial Projects  
(107 loans)



**70**  
SR Million  
Logistic Projects  
(5 loans)



**20**  
SR Million  
Energy Projects  
(5 loans)

## Promising areas and cities during 2021



**53%**

Of the total value of the approved loans worth SR 5.8Billion, compared to (15%) before implementing regulations to increase the Fund’s funding ratio for these projects.



**35%**

Of the total number of 41 approved loans, compared to 14% before the introduction of regulations to increase the Fund’s funding ratio for these projects.







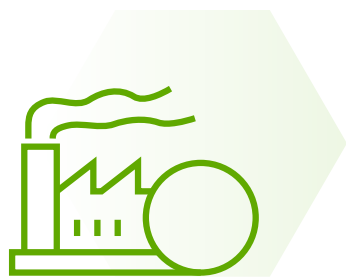
## Loans for SMEs Projects in 2021

The fiscal year 2021 witnessed the adoption of a high percentage of loans for SMEs.



**74%**

Percentage of total number for SMEs loans



**914**

SR Million value of SMEs loans

## Cumulative Lending Activity until the End of 2021

Overall, the figures achieved by the Fund from its inception to the end of the fiscal year 2021 demonstrate the success of the projects benefiting from its loans, as well as the Fund’s advisory support to these projects in technical, administrative, financial and marketing areas.



**4793**

Loans  
Number of approved loans



**199**

SR Billion  
Value of approved loans



**136**

SR Billion  
Disbursed amounts



**83.5**

SR Billion  
Repaid amounts



**60%**

Total repayments to total disbursements

## Economic Impact of SIDF Loans during 2000-2021



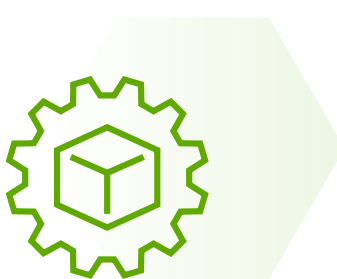
**237**

Thousand  
New job opportunity in funded projects



**98**

SR Billion  
Value of industrial exports for funded projects



**126**

SR Billion  
Value of funded projects purchasing local raw materials



**163**

SR Billion  
Value of GDP from funded projects



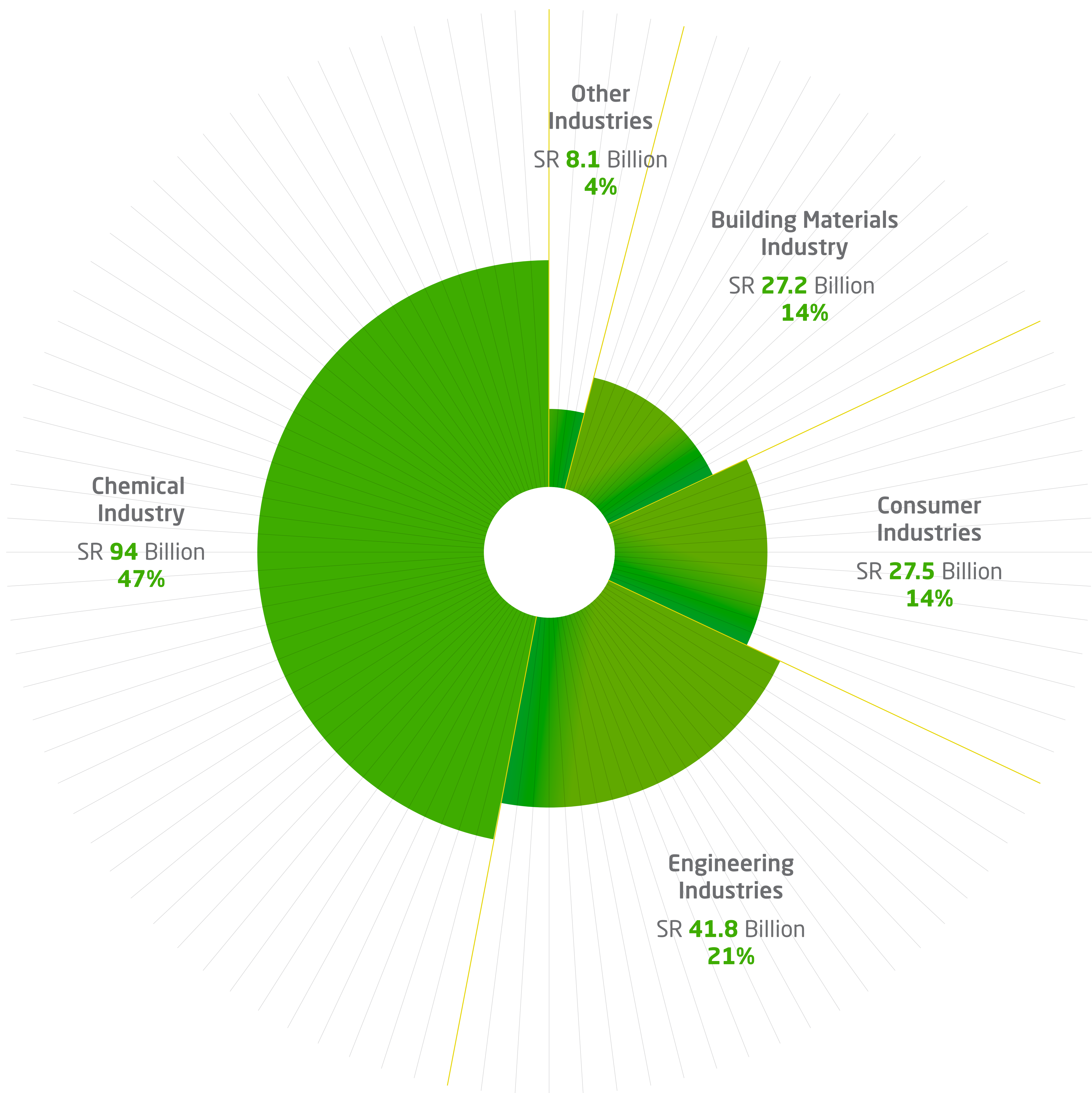




# First: Sectoral Distribution

By reviewing the Fund’s lending activity covering the key industrial sectors in Saudi Arabia, by the value of the loans it has approved, it is clear to us the size of this activity of the last fiscal year 2021, as follows:

## Sectoral cumulative distribution of the value of approved loans until the end of 2021







# 1.1 Chemical Industries



## Loans approved during 2021:



**31**  
Loans



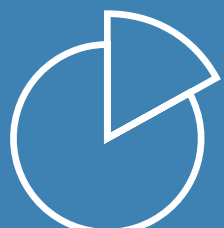
**26%**  
of the total  
number of loans



Rank third in  
number of loans



**1,841**  
SR Million



**17%**  
of the total  
value of loans



Rank second in  
value of loans

## New loans approved:



**1,190**  
SR Million  
to produce hydrogen gas  
in Jubail city



**192**  
SR Million  
to manufacture and produce packaging  
products in Jubail and Hafuf cities

## Cumulative loans approved until the end of 2021



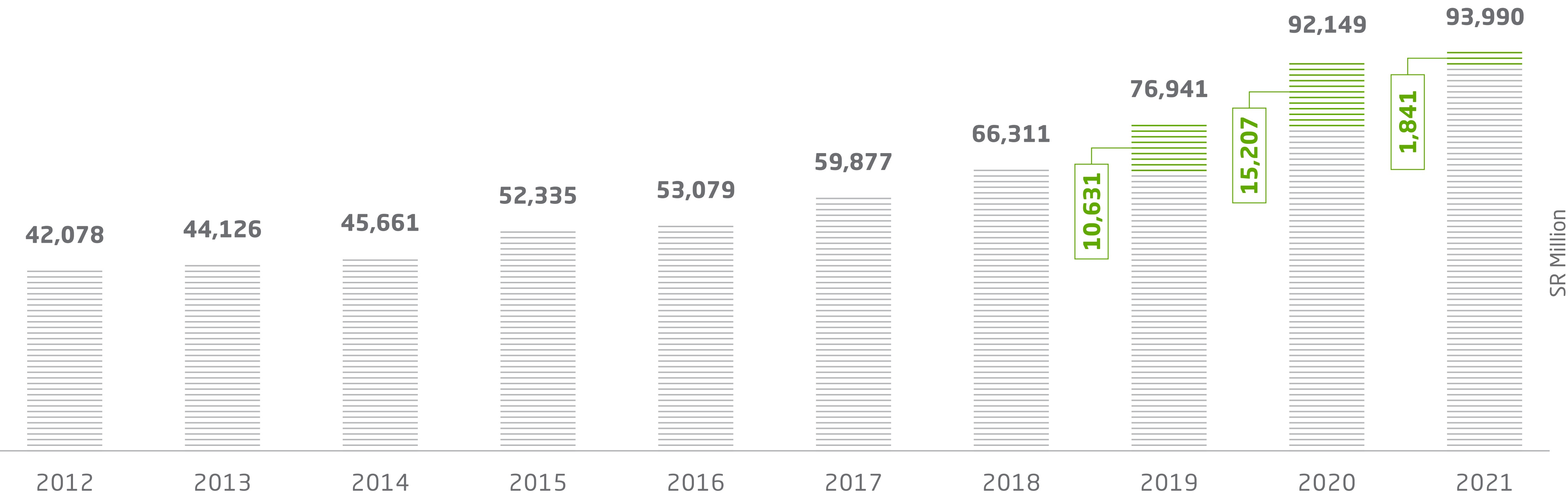
**93,990**  
SR Million



**47%**  
of the total value of loans



Rank first in  
cumulative loans value

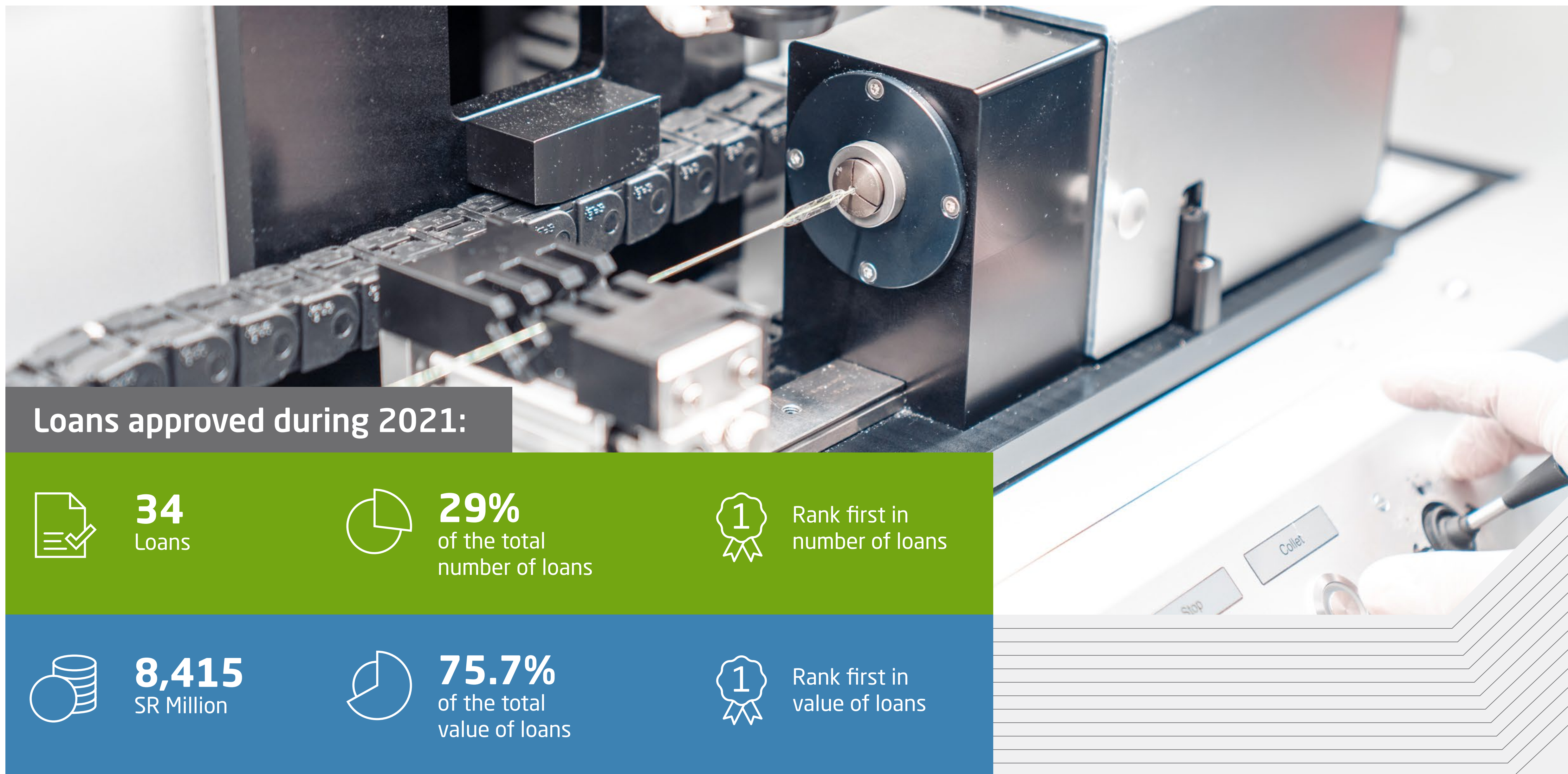


Cumulative loan value during the period (2012 - 2021)

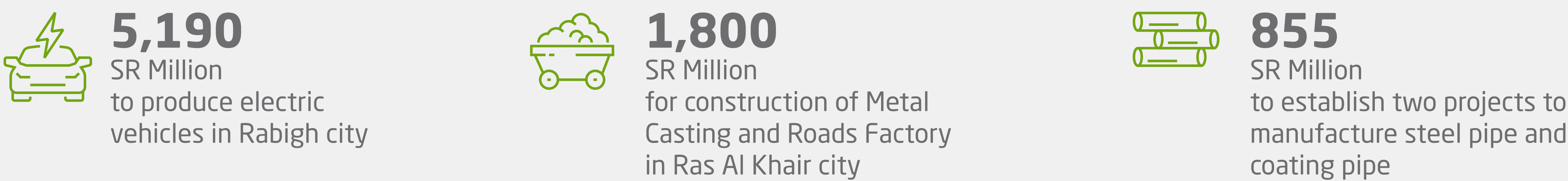




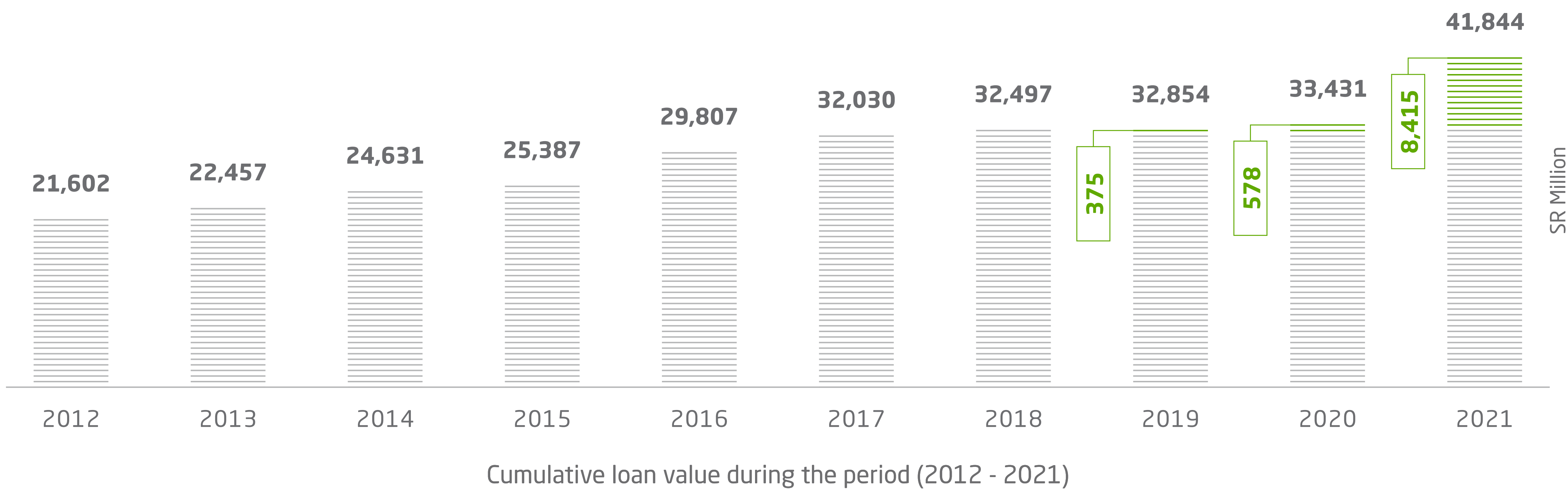
## 1.2 Engineering Industries



### New loans approved:



### Cumulative loans approved until the end of 2021







# 1.3 Consumer Industries



## Loans approved during 2021:



**32**  
Loans



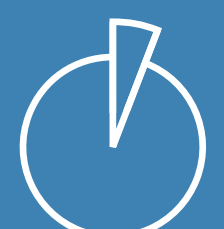
**27%**  
of the total  
number of loans



Rank second in  
number of loans



**620**  
SR Million



**6%**  
of the total  
value of loans



Rank third in  
value of loans

## New loans approved:



**278**

SR Million  
for the establishment of a factory manufacturing white sugar in Yanbu city and  
the other for the manufacture of frozen potato slices and starch in Al Jowf city



**53**

SR Million  
to establish a factory to manufacture  
frozen pastry in Riyadh city

## Cumulative loans approved until the end of 2021



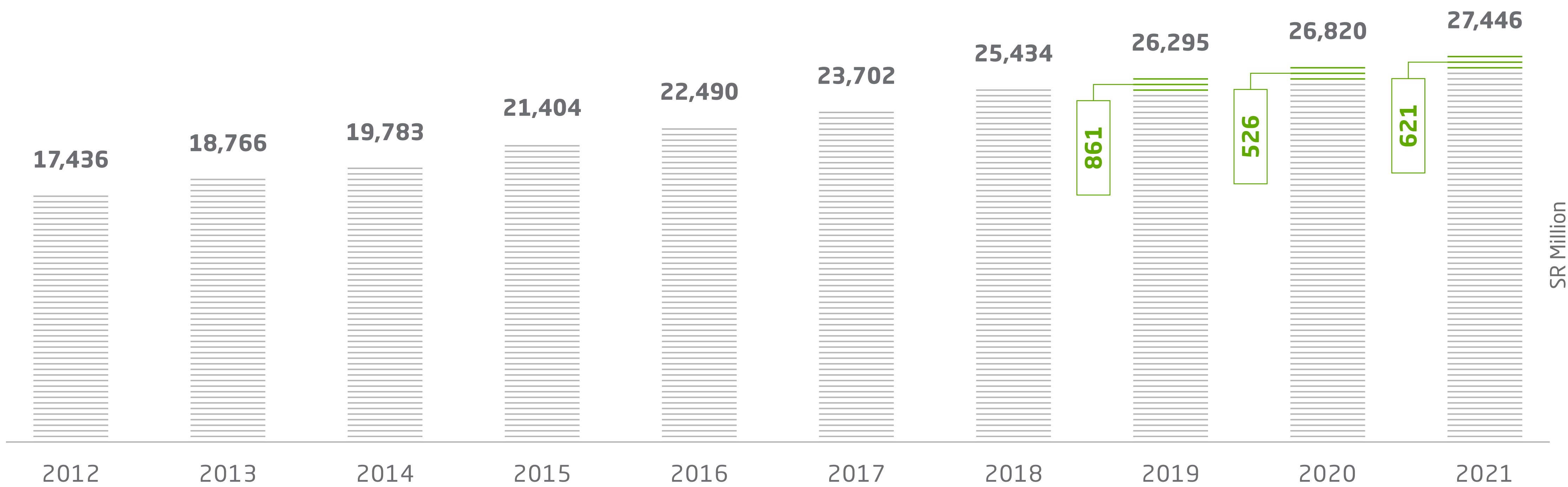
**27,446**  
SR Million



**14%**  
of the total value of loans



Rank third in  
cumulative loans value



Cumulative loan value during the period (2012 - 2021)



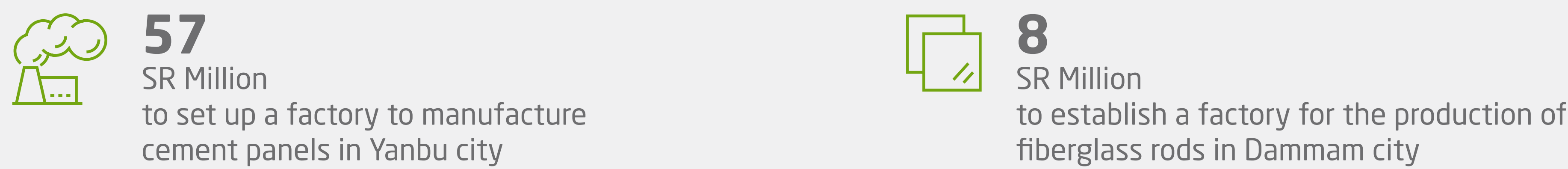




# 1.4 Building Materials Industry



## New loans approved:



## Cumulative loans approved until the end of 2021





# 1.5 Other Industries



**New loans approved:**

**71** SR Million  
a project to equip prefabricated factories, and another for the project of refrigerated warehouses in Jeddah city

**19** SR Million  
for logistics projects at Riyadh, Jeddah, and Dammam airports

**Cumulative loans approved until the end of 2021**

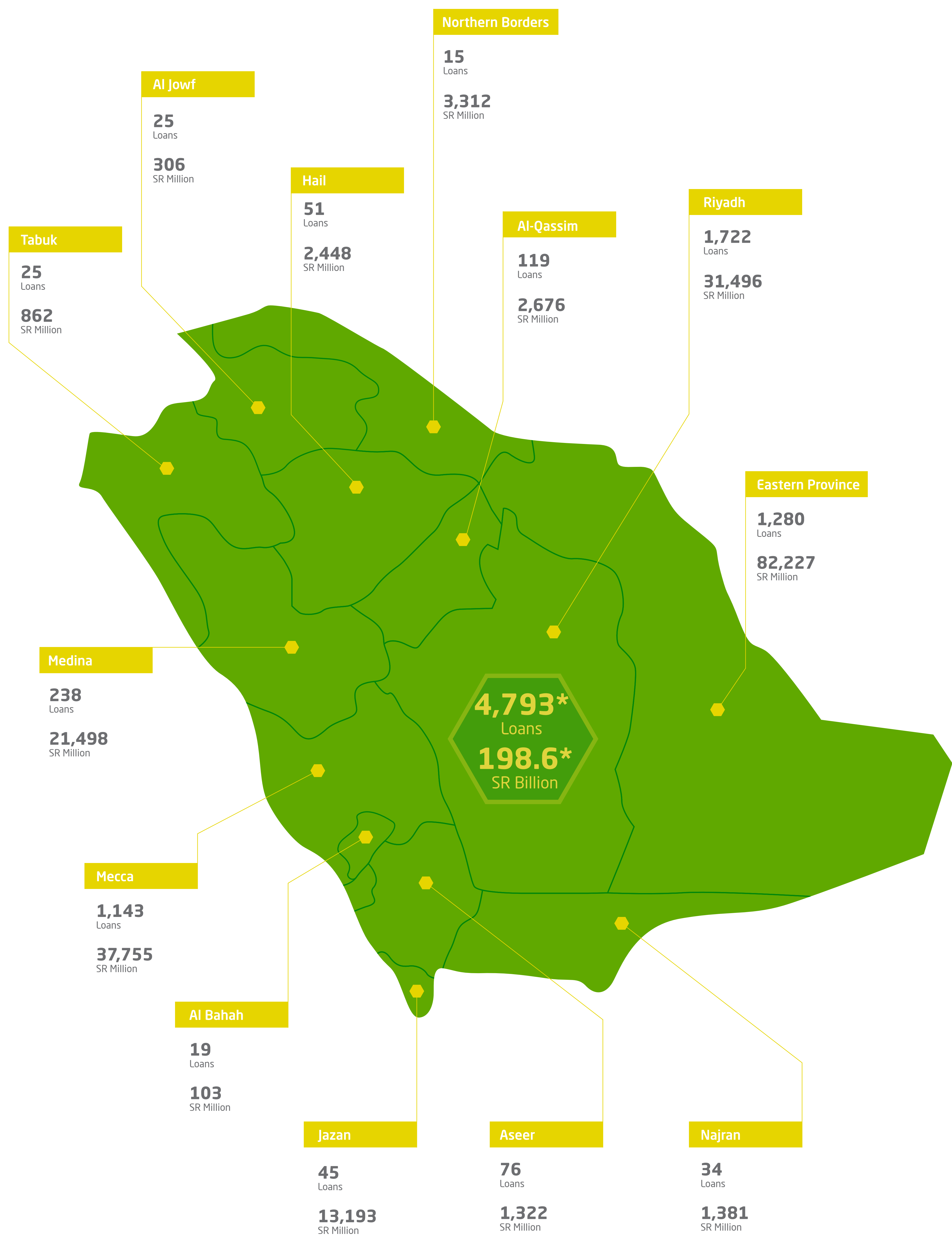






## Second: Geographical Distribution

Figure of geographical distribution of total SIDF approved loans, in terms of number and value of loans, across regions of the Kingdom until the end of 2021



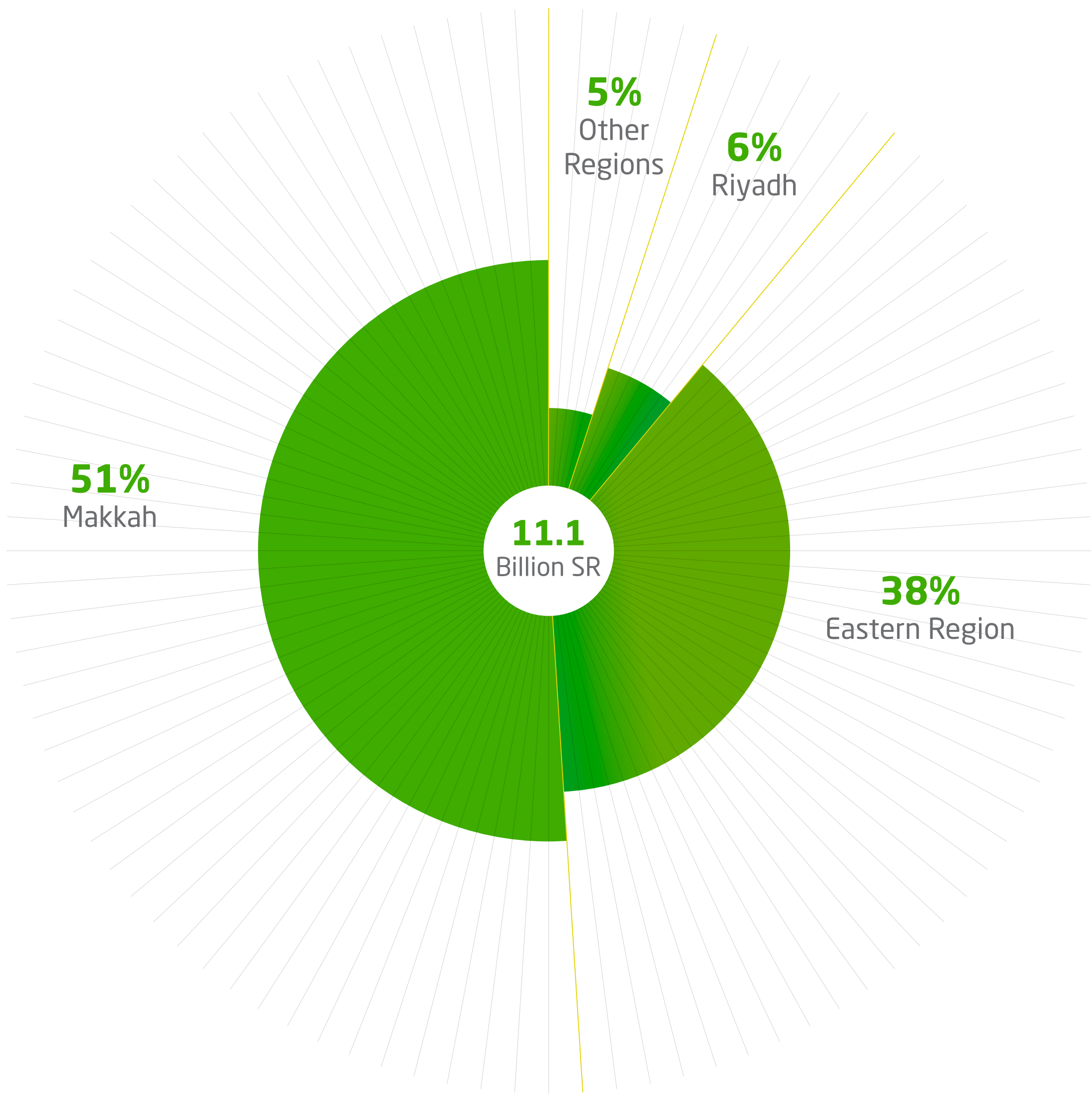
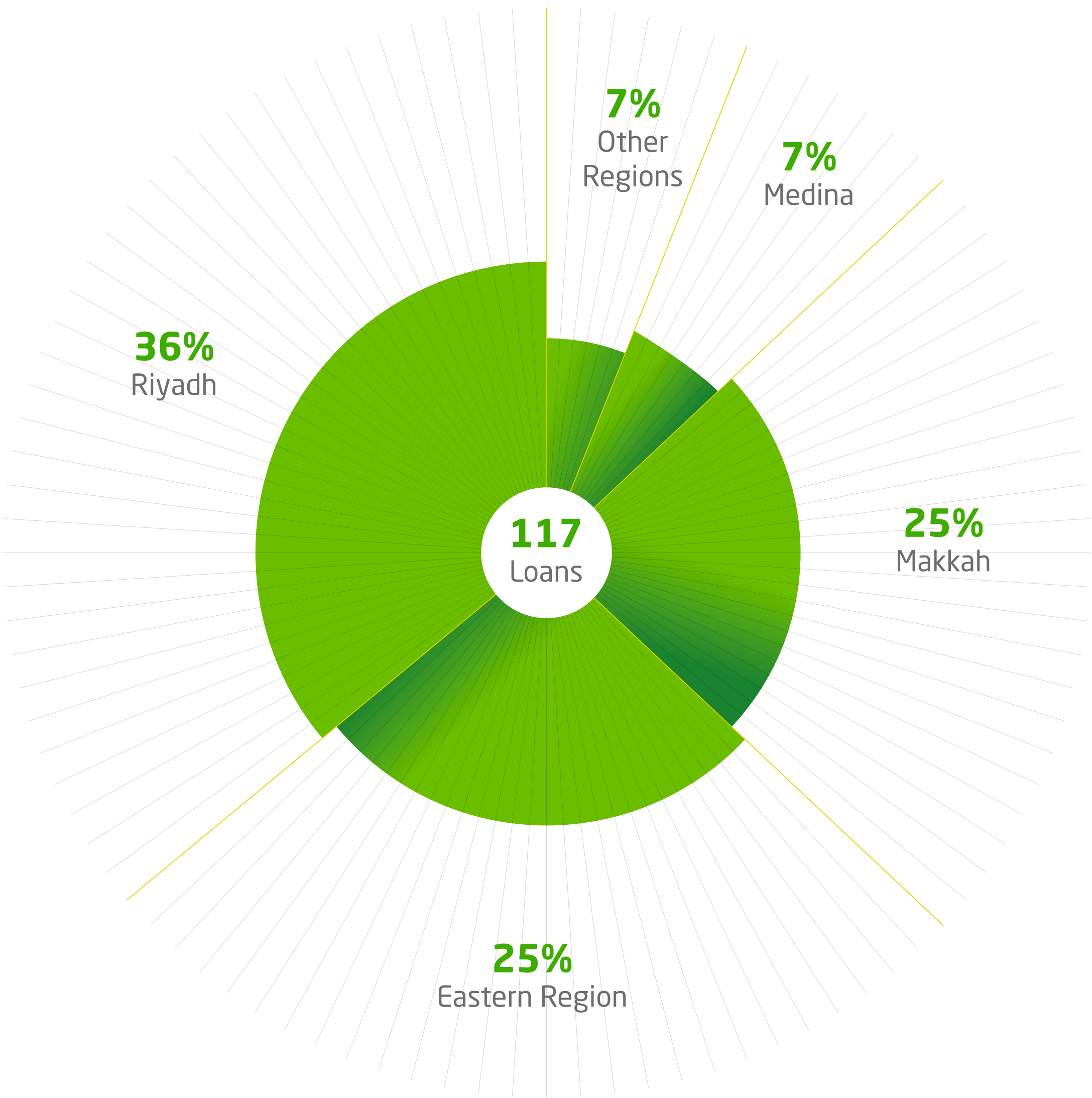
\* Multi-place loan worth SR 29 Million



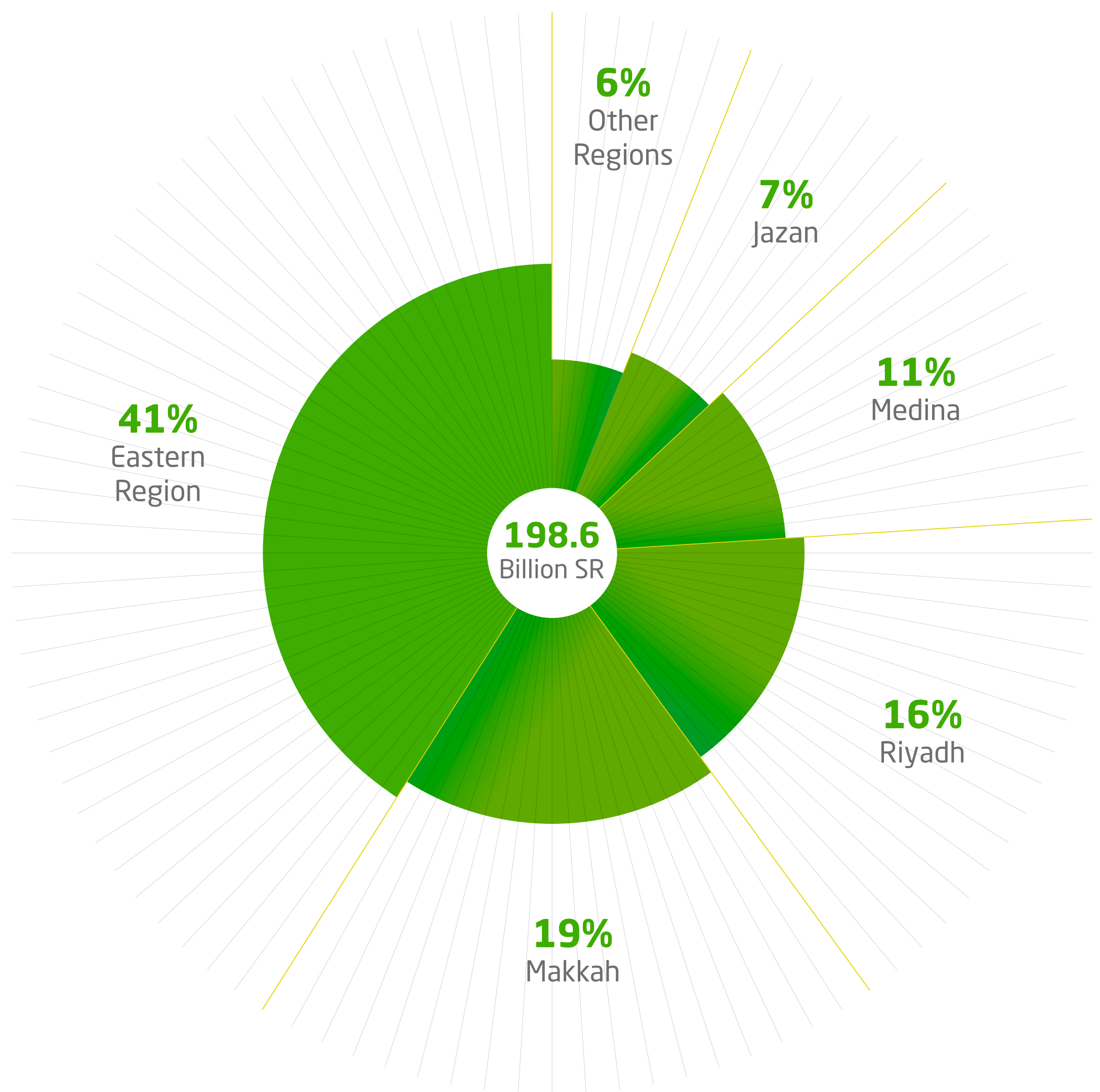
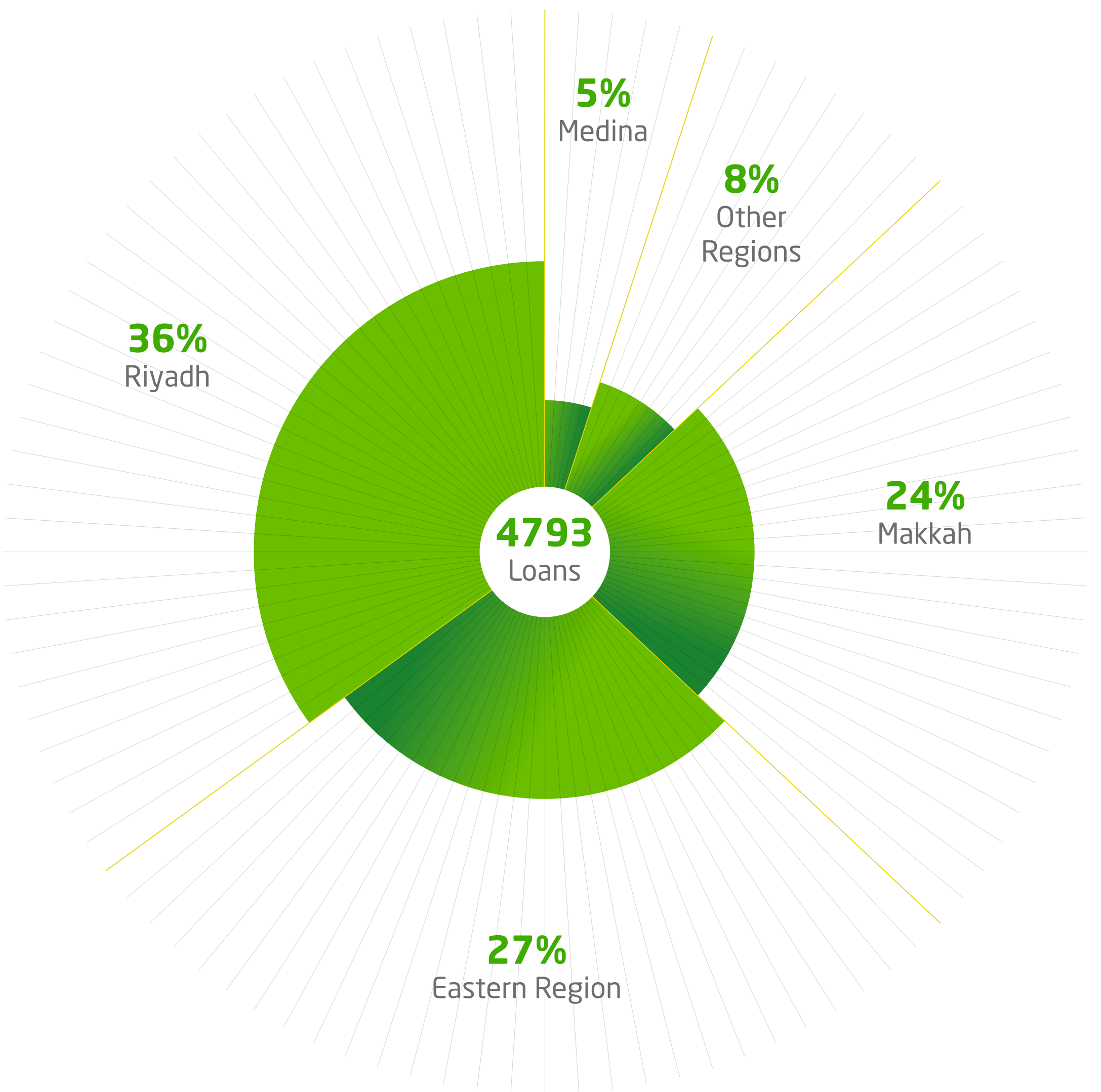




## Percentage Distribution of Approved Loans in 2021



## Cumulative Percentage Distribution of Approved Loans until end of 2021







## 2.1 Riyadh Region

### Approved loans in 2021



**42**  
Loans



**36%**  
of the total  
number of loans



Rank first in  
number of loans



**702**  
SR Million



**6%**  
of the total  
value of loans



Rank third in  
value of loans



### Cumulative loans approved until the end of 2021



**1,722**  
Loans



**36%**  
of the total  
number of loans



Rank first in  
number of loans



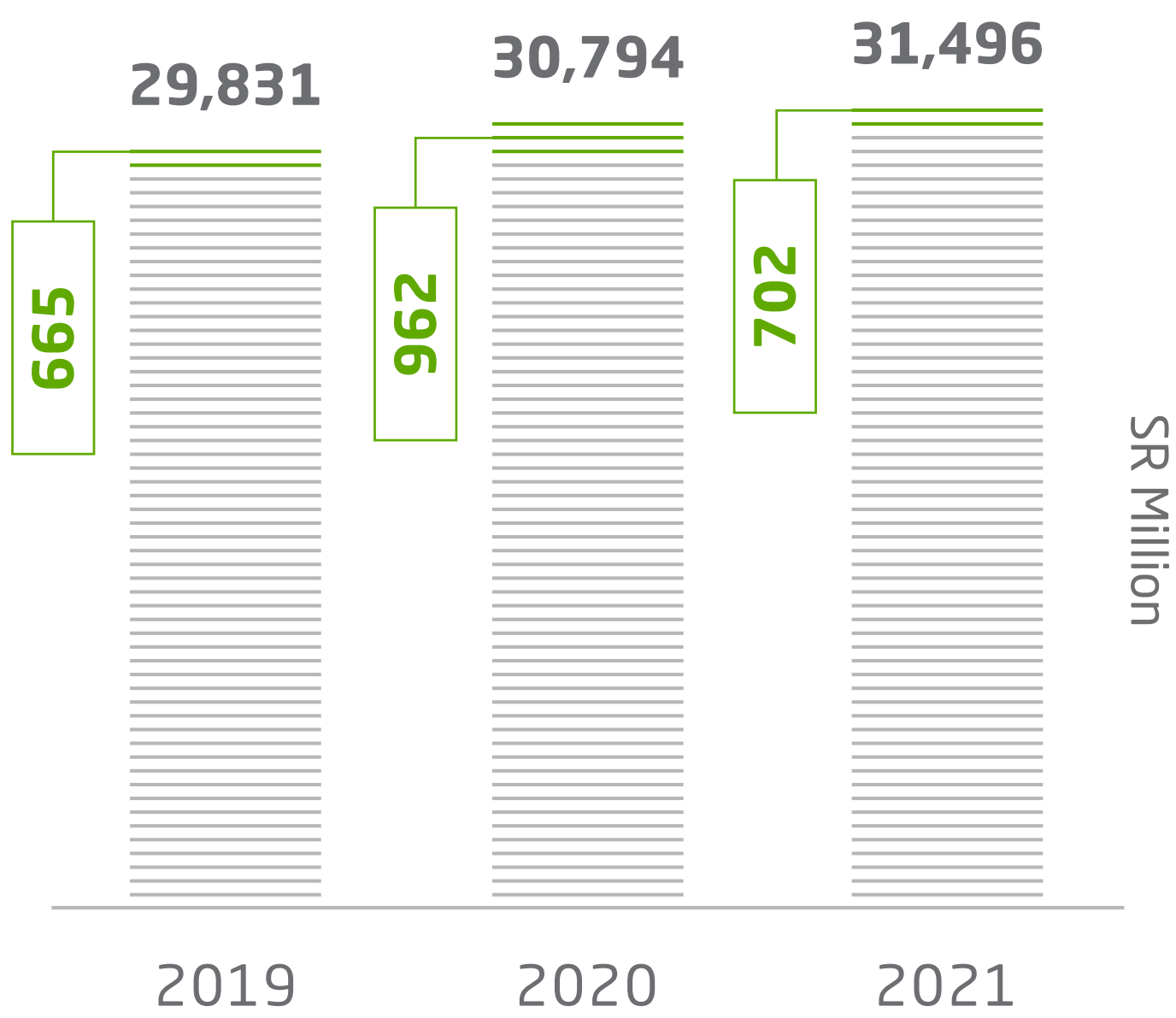
**31,496**  
SR Million



**16%**  
of the total  
value of loans



Rank third in  
value of loans



Cumulative loans during the period (2019 - 2021)

## 2.2 Makkah Region

### Approved loans in 2021



**29**  
Loans



**24%**  
of the total  
number of loans



Rank third in  
number of loans



**5,645**  
SR Million



**51%**  
of the total  
value of loans



Rank first in  
value of loans



### Cumulative loans approved until the end of 2021



**1,143**  
Loans



**24%**  
of the total  
number of loans



Rank third in  
number of loans



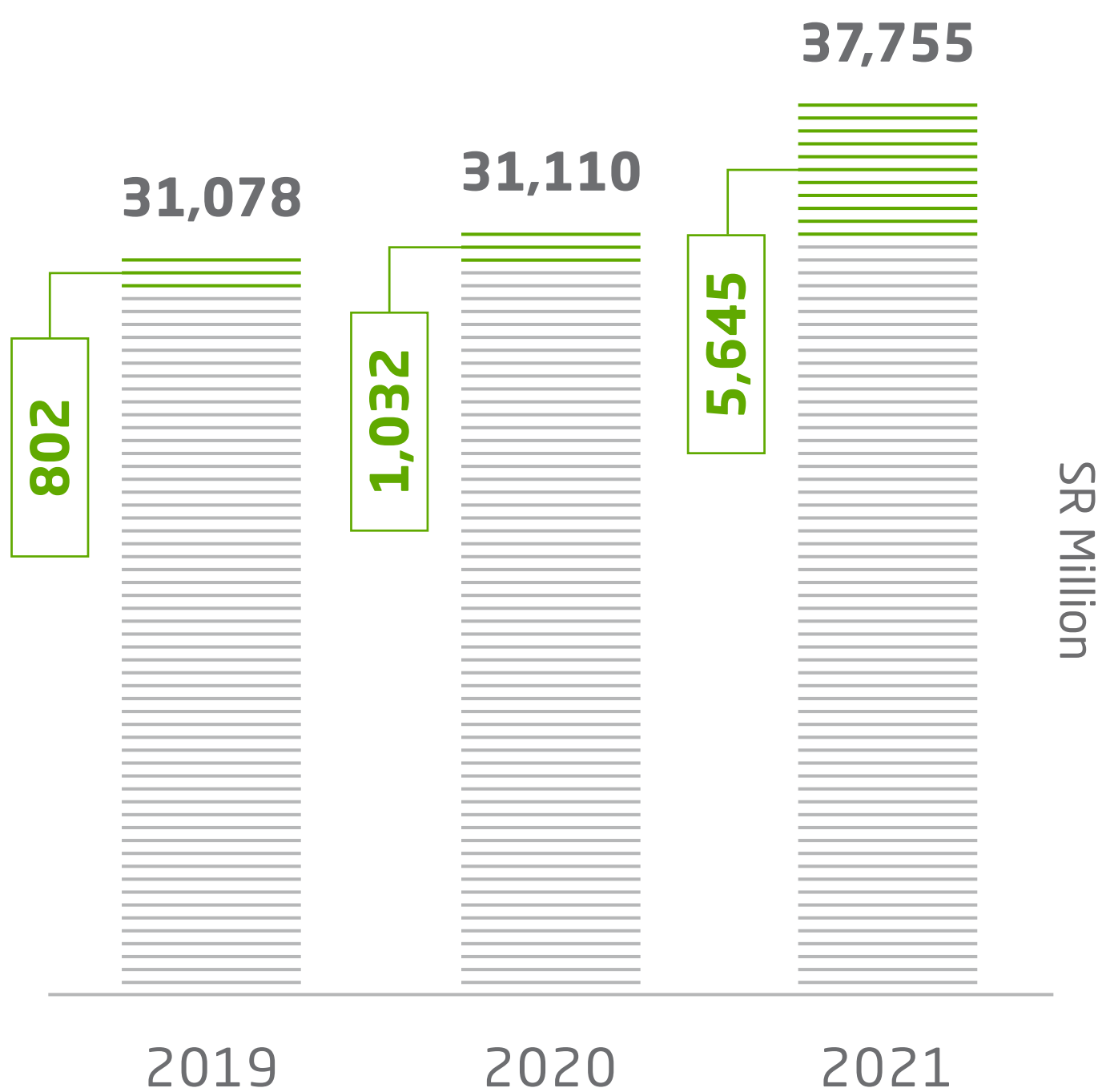
**37,755**  
SR Million



**19%**  
of the total  
value of loans



Rank second in  
value of loans



Cumulative loans during the period (2019 - 2021)







## 2.3 Eastern Region

### Approved loans in 2021



**30**  
Loans



**26%**  
of the total  
number of loans



Rank second in  
number of loans



**4,266**  
SR Million



**38.4%**  
of the total  
value of loans



Rank second in  
value of loans



### Cumulative loans approved until the end of 2021



**1,280**  
Loans



**27%**  
of the total  
number of loans



Rank first in  
number of loans



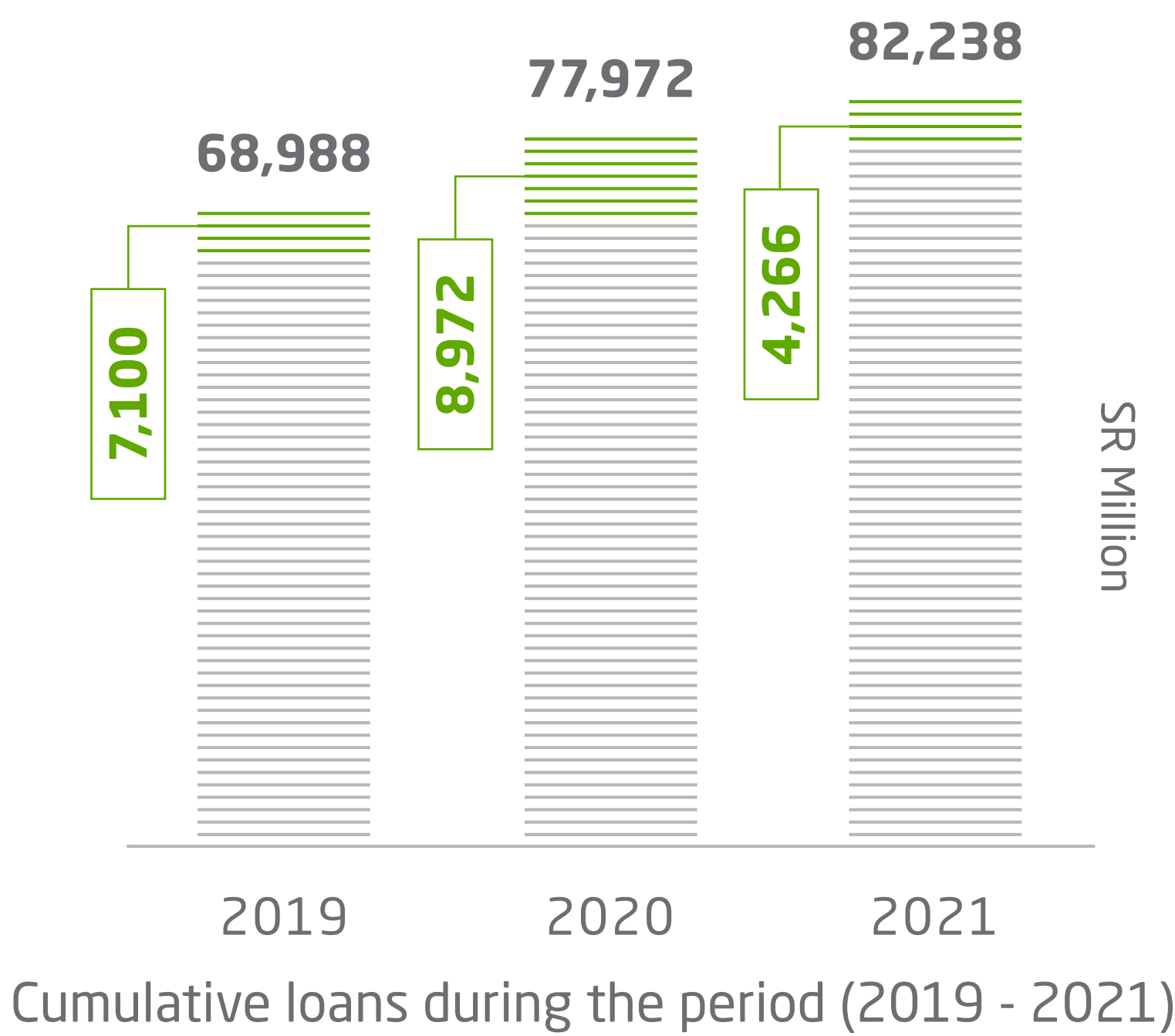
**82,238**  
SR Million



**41%**  
of the total  
value of loans



Rank second in  
value of loans



## 2.4 Medina Region

### Approved loans in 2021



**8**  
Loans



**7%**  
of the total  
number of loans



Rank fourth in  
number of loans



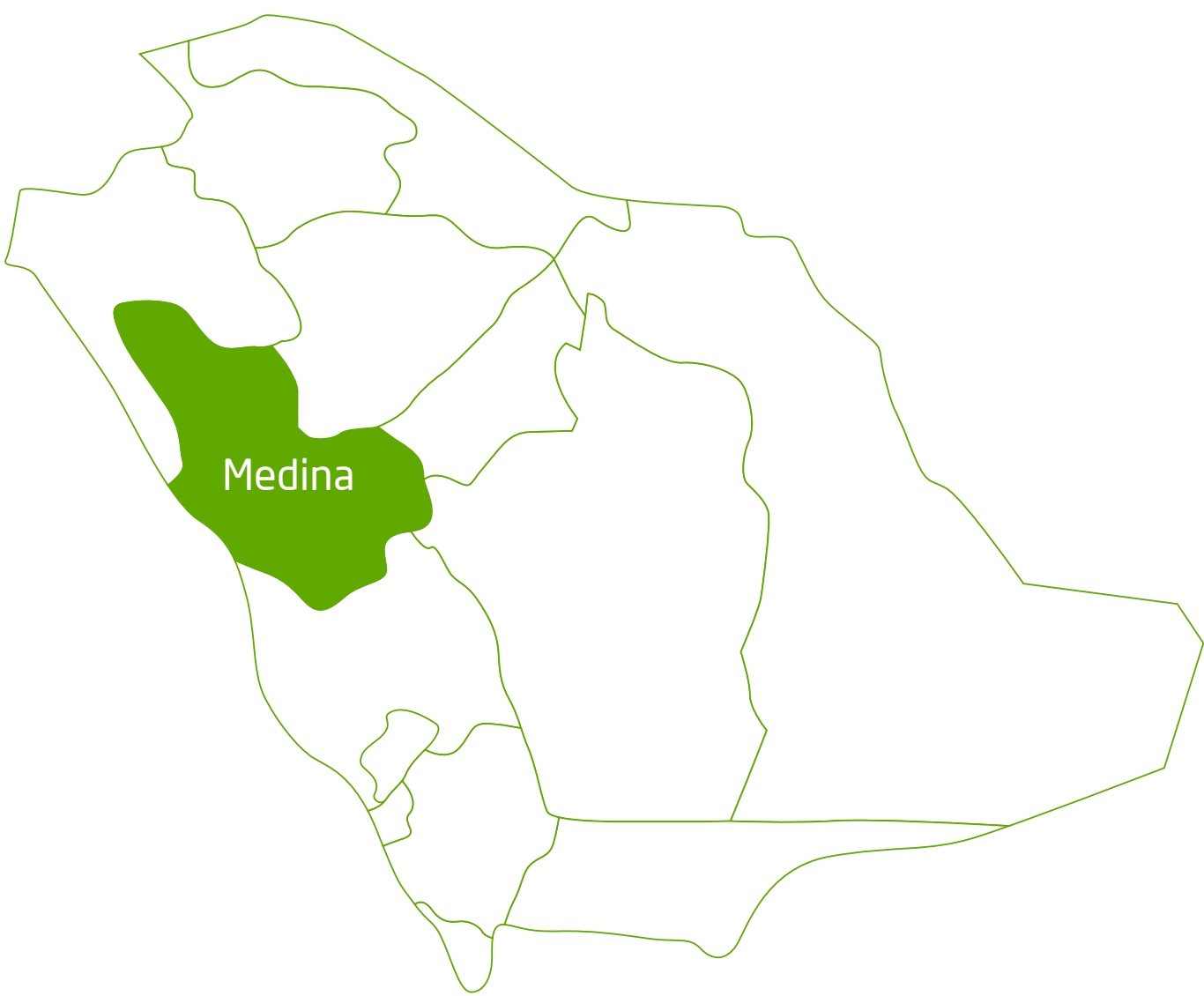
**276**  
SR Million



**2.4%**  
of the total  
value of loans



Rank fourth in  
value of loans



### Cumulative loans approved until the end of 2021



**238**  
Loans



**5%**  
of the total  
number of loans



Rank fourth in  
number of loans



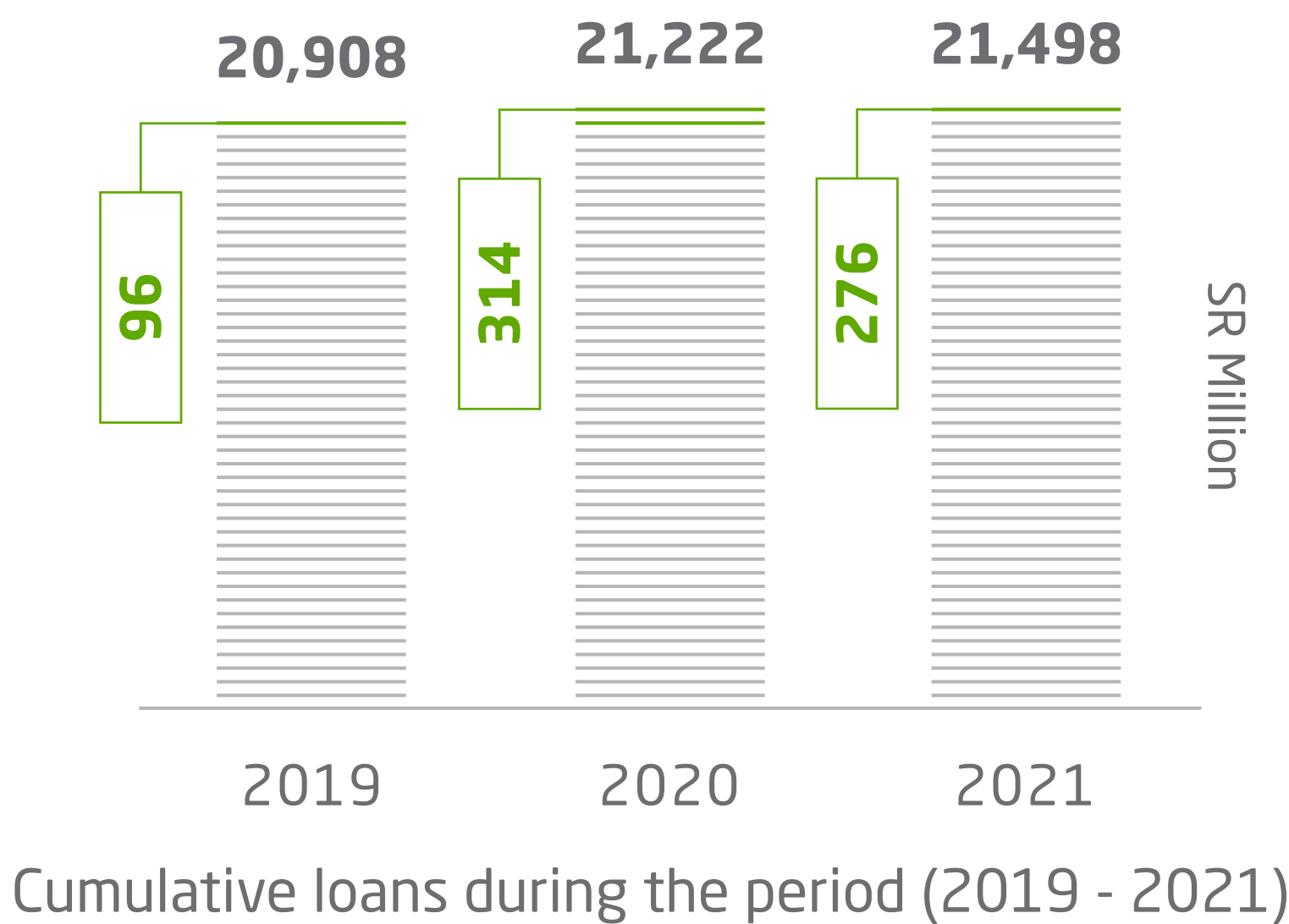
**21,498**  
SR Million



**11%**  
of the total  
value of loans



Rank fourth in  
value of loans







## 2.5 Asir Region

### Approved loans in 2021



**3**  
Loans



**2.5%**  
of the total  
number of loans



Rank fifth in  
number of loans



**24**  
SR Million



**0.2%**  
of the total  
value of loans



Rank eight in  
value of loans



A promising region benefiting from the new regulations to activate the decision to increase the funding ratio for the less developed regions and cities, not more than 75% of the project cost instead of 50%, and a loan repayment period of up to 20 years instead of 15 years.

### Cumulative loans approved until the end of 2021



**76**  
Loans



**1.6%**  
of the total  
number of loans



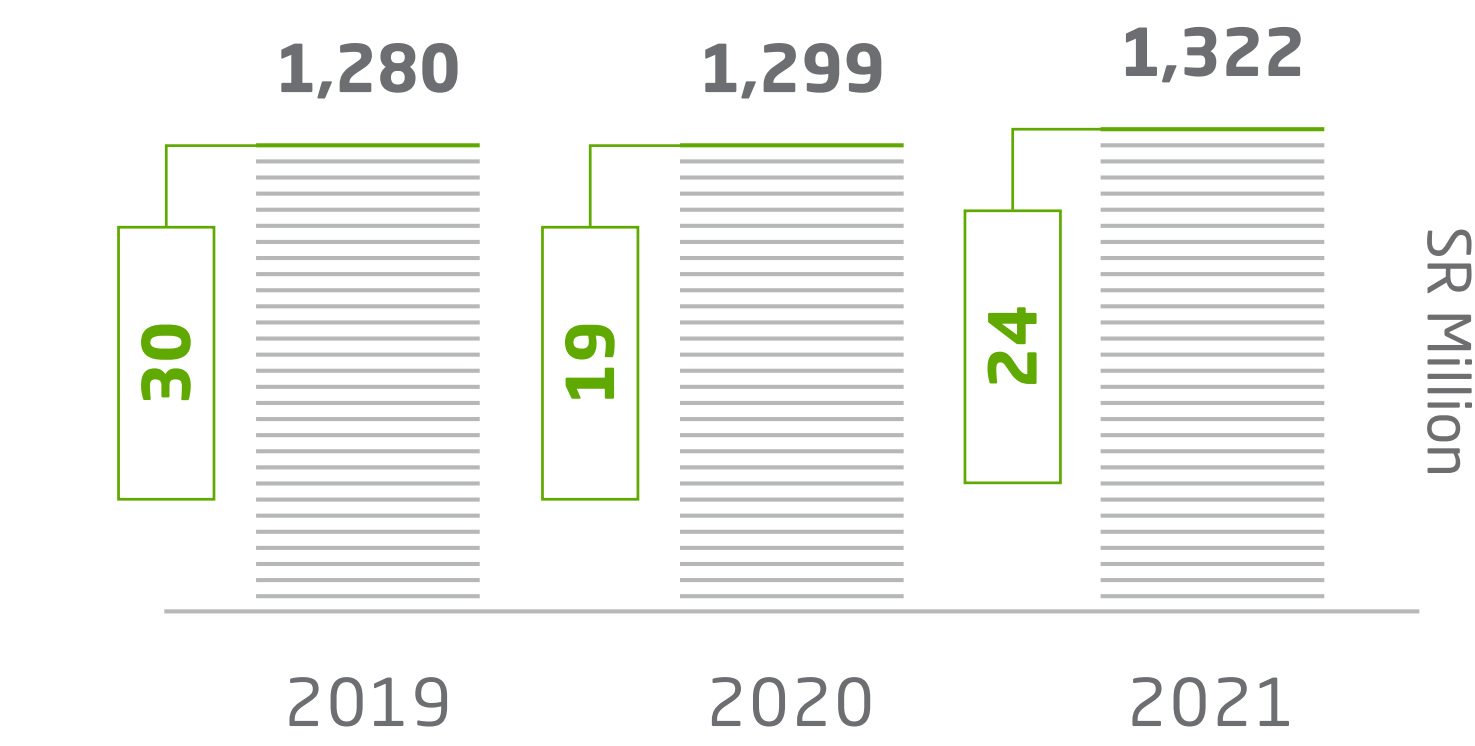
Rank sixth in  
number of loans



**1,322**  
SR Million



**1%**  
of the total  
value of loans



Cumulative loans during the period (2019 - 2021)

## 2.6 Hail Region

### Approved loans in 2021



**3**  
Loans



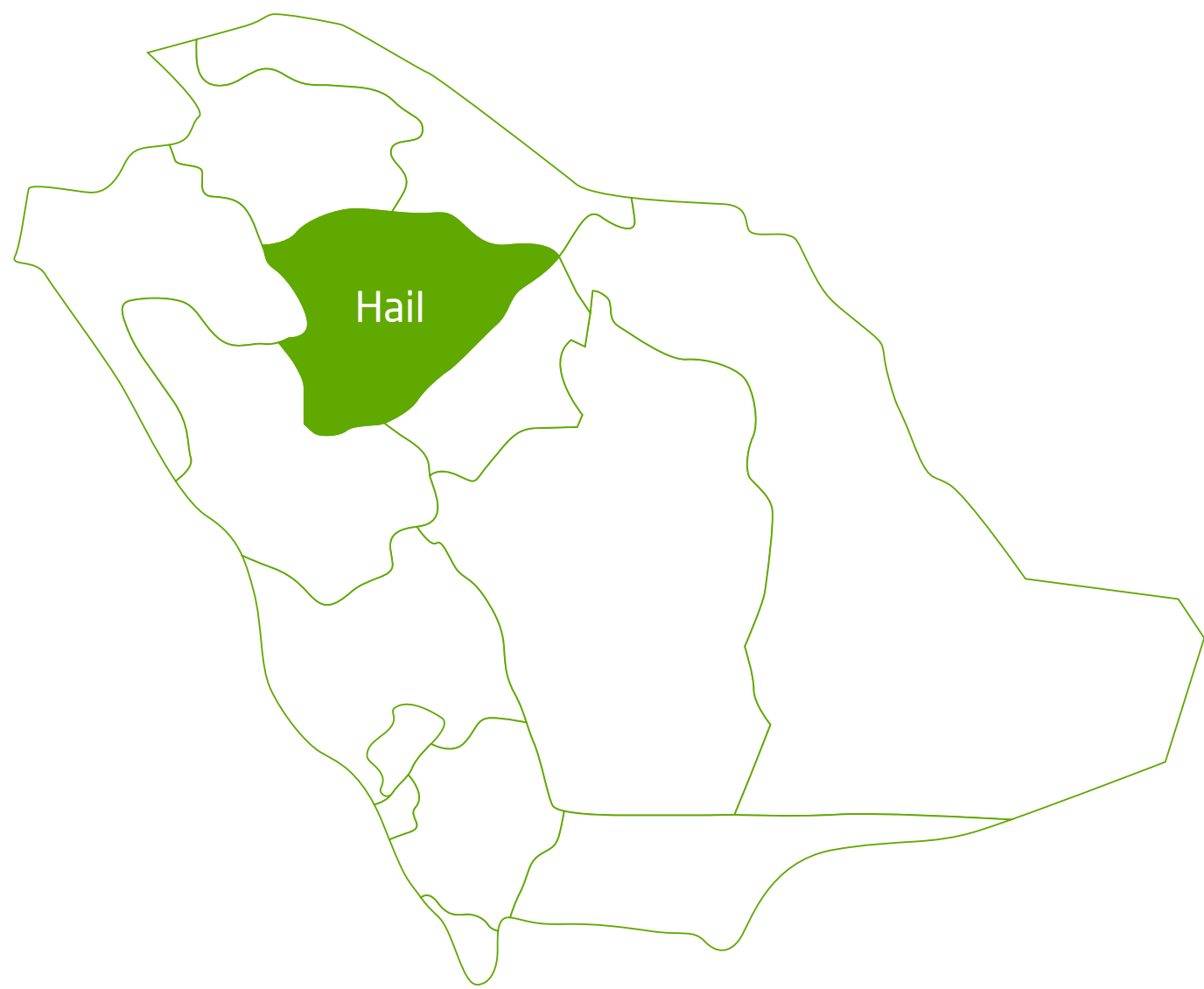
Rank sixth in  
number of loans



**91**  
SR Million



Rank fifth in  
value of loans



A promising region benefiting from the new regulations to activate the decision to increase the funding ratio for the less developed regions and cities, not more than 75% of the project cost instead of 50%, and a loan repayment period of up to 20 years instead of 15 years.

### Cumulative loans approved until the end of 2021



**51**  
Loans



**1%**  
of the total  
number of loans



Rank seventh in  
number of loans



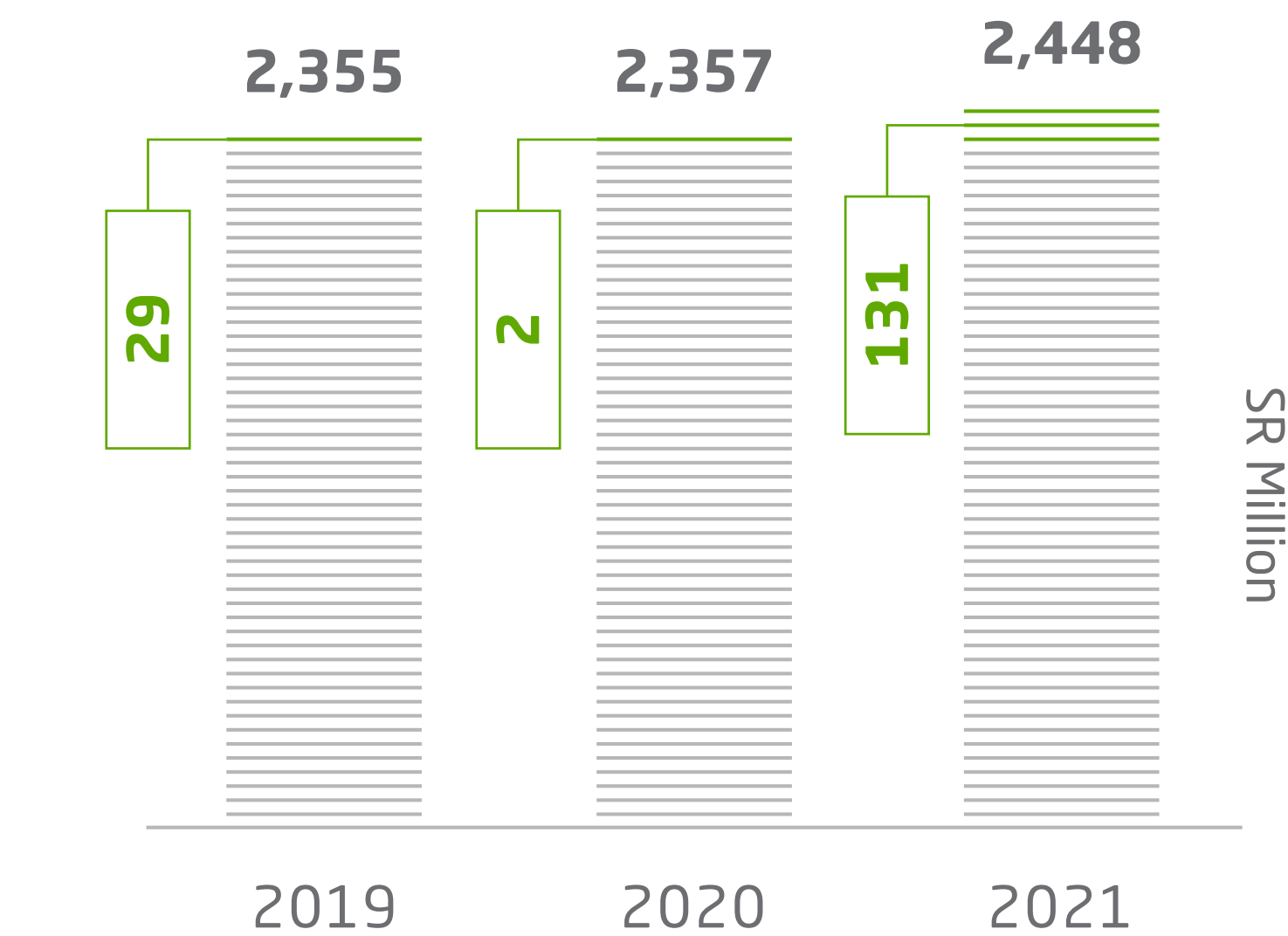
**2,448**  
SR Million



**1.2%**  
of the total  
value of loans



Rank ninth in  
value of loans



Cumulative loans during the period (2019 - 2021)







## 2.7 Al-Qassim Region

### Approved loans in 2021



**1**  
Loan



Rank eighth in  
number of loans



**28**  
SR Million



Rank seventh in  
value of loans



### Cumulative loans approved until the end of 2021



**119**  
Loans



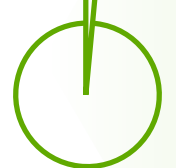
**2.4%**  
of the total  
number of loans



Rank fifth in  
number of loans



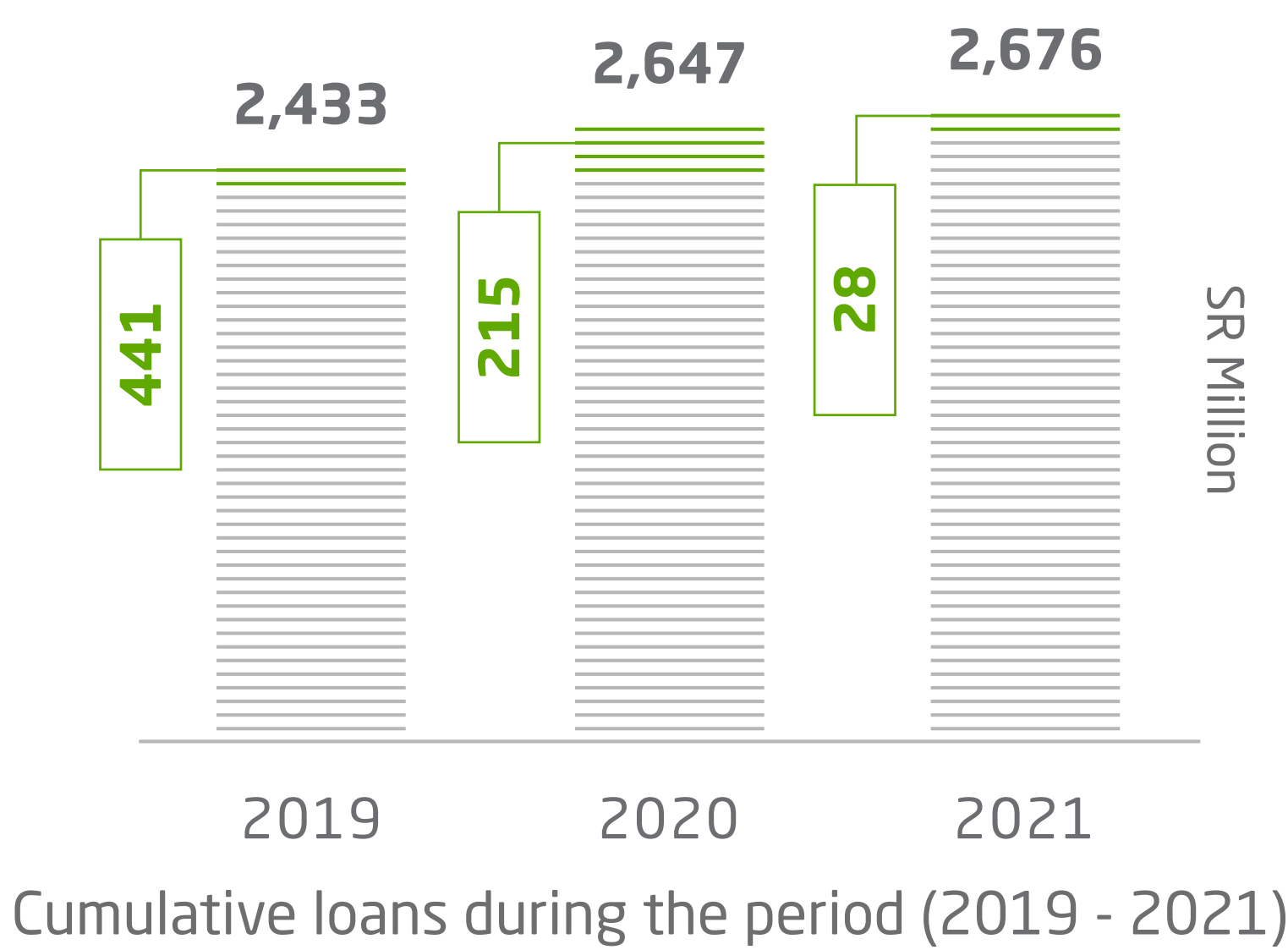
**2,676**  
SR Million



**1.3%**  
of the total  
value of loans



Rank seventh in  
value of loans



## 2.8 Other Regions of the Kingdom

### Approved loans in 2021



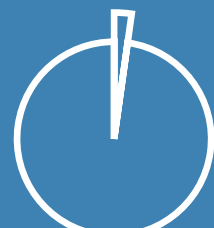
**1**  
Loan



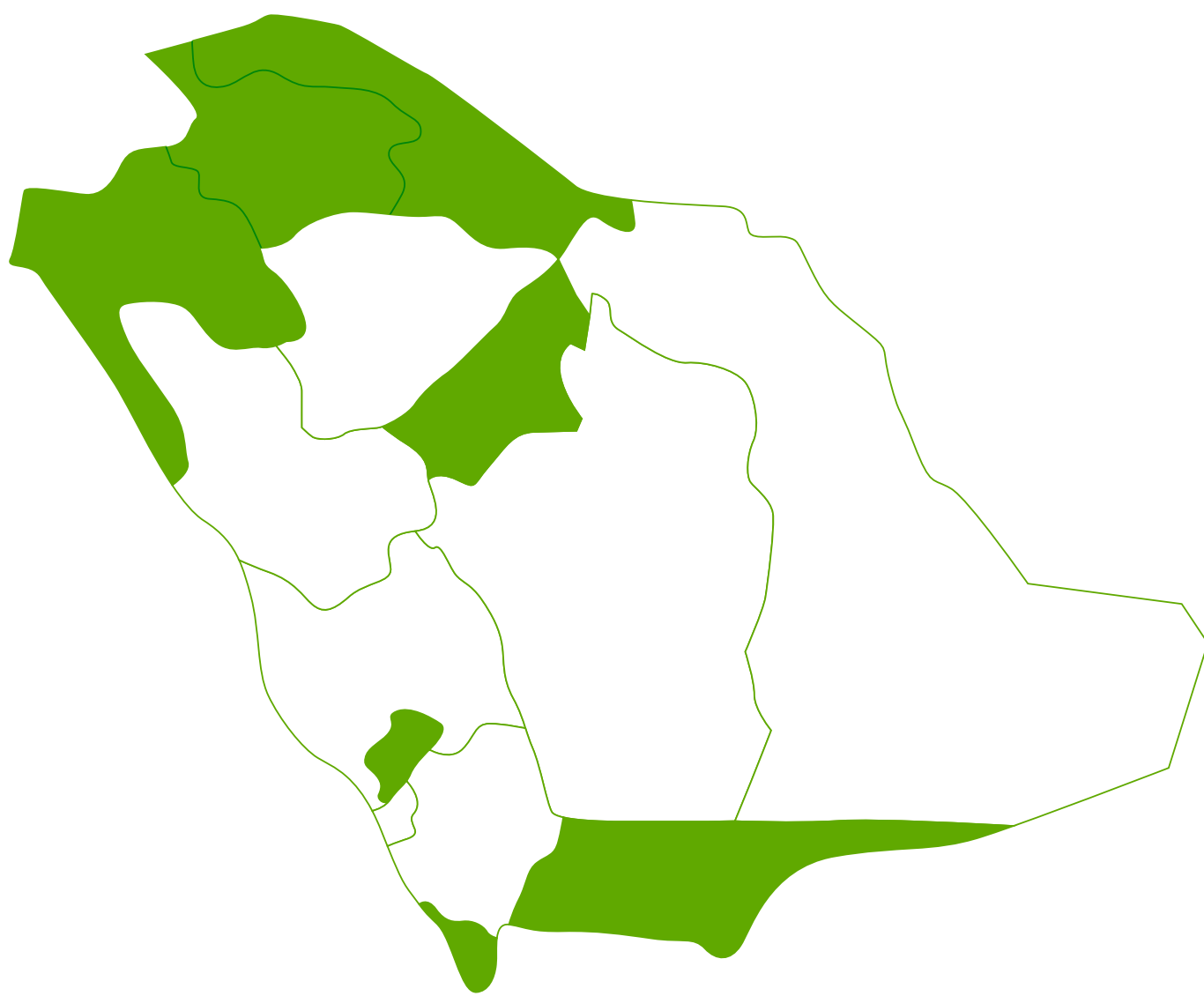
**1%**  
of the total  
number of loans



**81**  
SR Million



**0.7%**  
of the total  
value of loans



### Cumulative loans approved until the end of 2021



**164**  
Loans



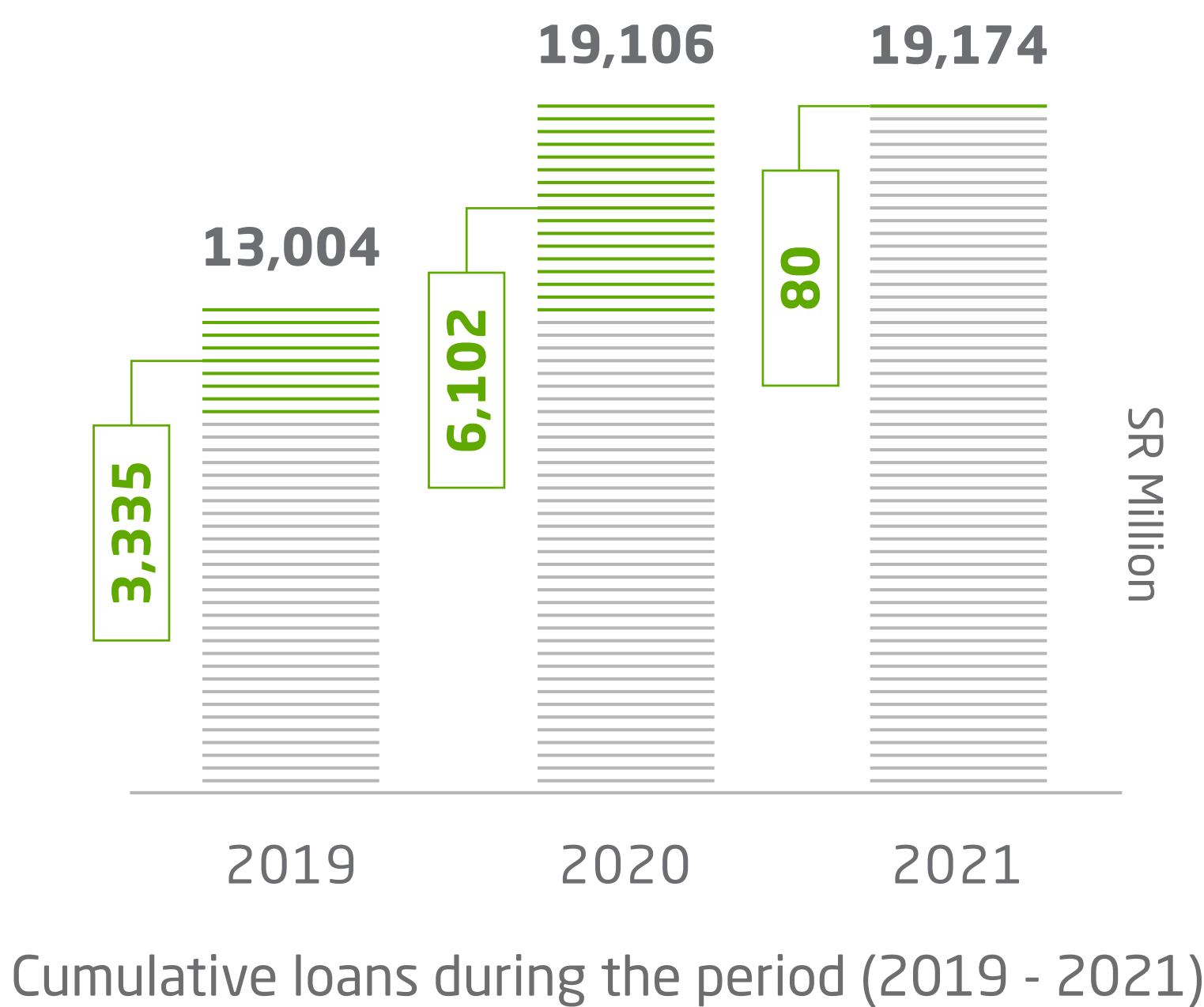
**3%**  
of the total  
number of loans



**19,174**  
SR Million



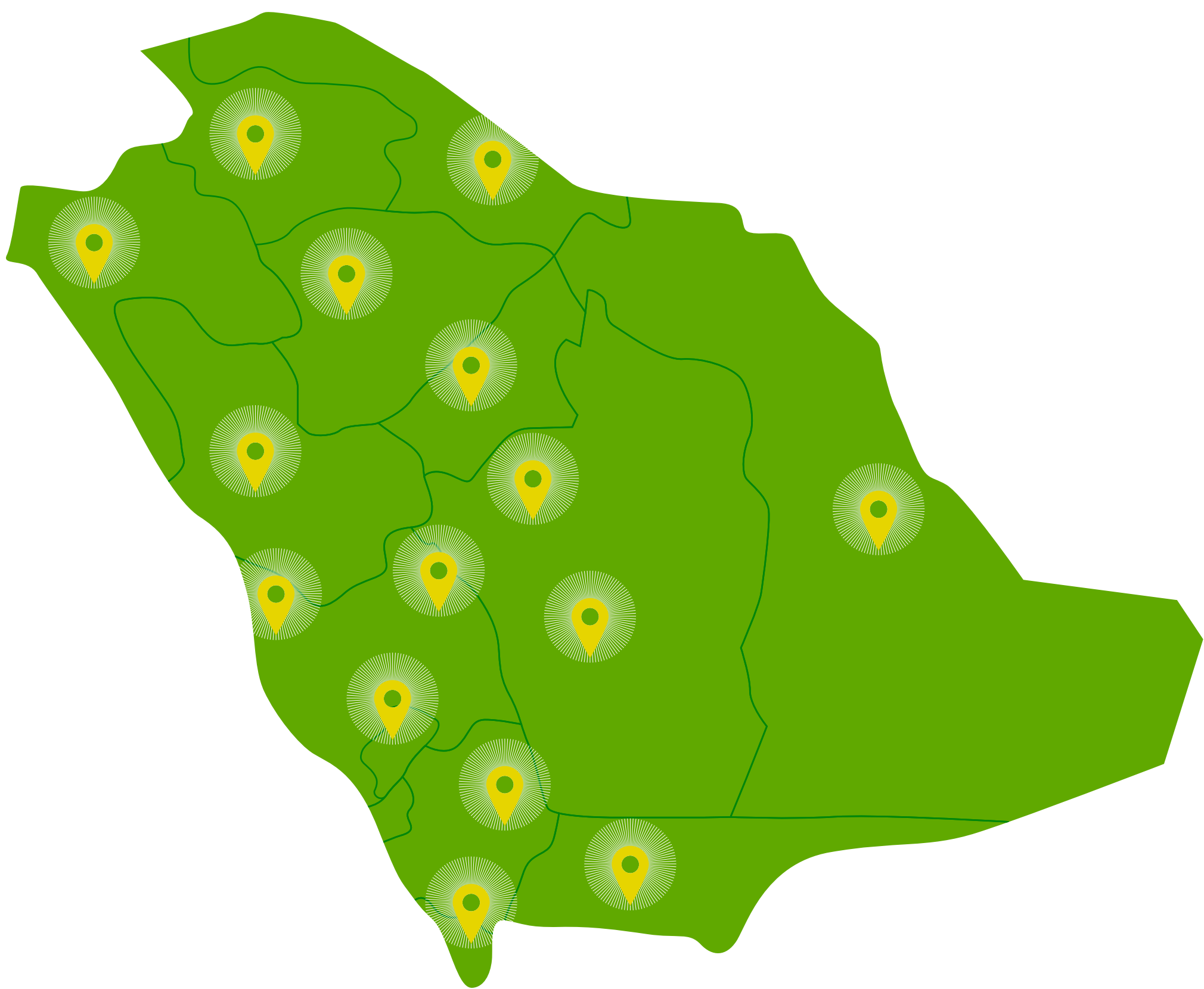
**9.5%**  
of the total  
value of loans





## 2.9 Promising Regions and Cities

The SIDF Board has adopted new regulations and features that outline the percentage of SIDF financing for industrial projects in promising regions and cities across the Kingdom. These regions are located outside the parameters of central Saudi regions and cities. The initiative was in response and compliance with Resolution no. 296, issued by the Council of Ministers on 14/10/1432H (12/09/2011), with a vision for the industrial sector to transform and expand into a regionally-inclusive sector. The Resolution approved raising loans granted by SIDF for projects in less developed regions and cities (promising regions), covering up to 75% of the total project cost -- rather than 50%-- and extending the loan repayment period to up to 20 years rather than 15.



### Approved loans in 2021



**41**  
Loans



**35%**  
of the total  
number of loans



**5,853**  
SR Million



**53%**  
of the total  
number of loans

### Cumulative loans approved until the end of 2021



**1,093**  
Loans



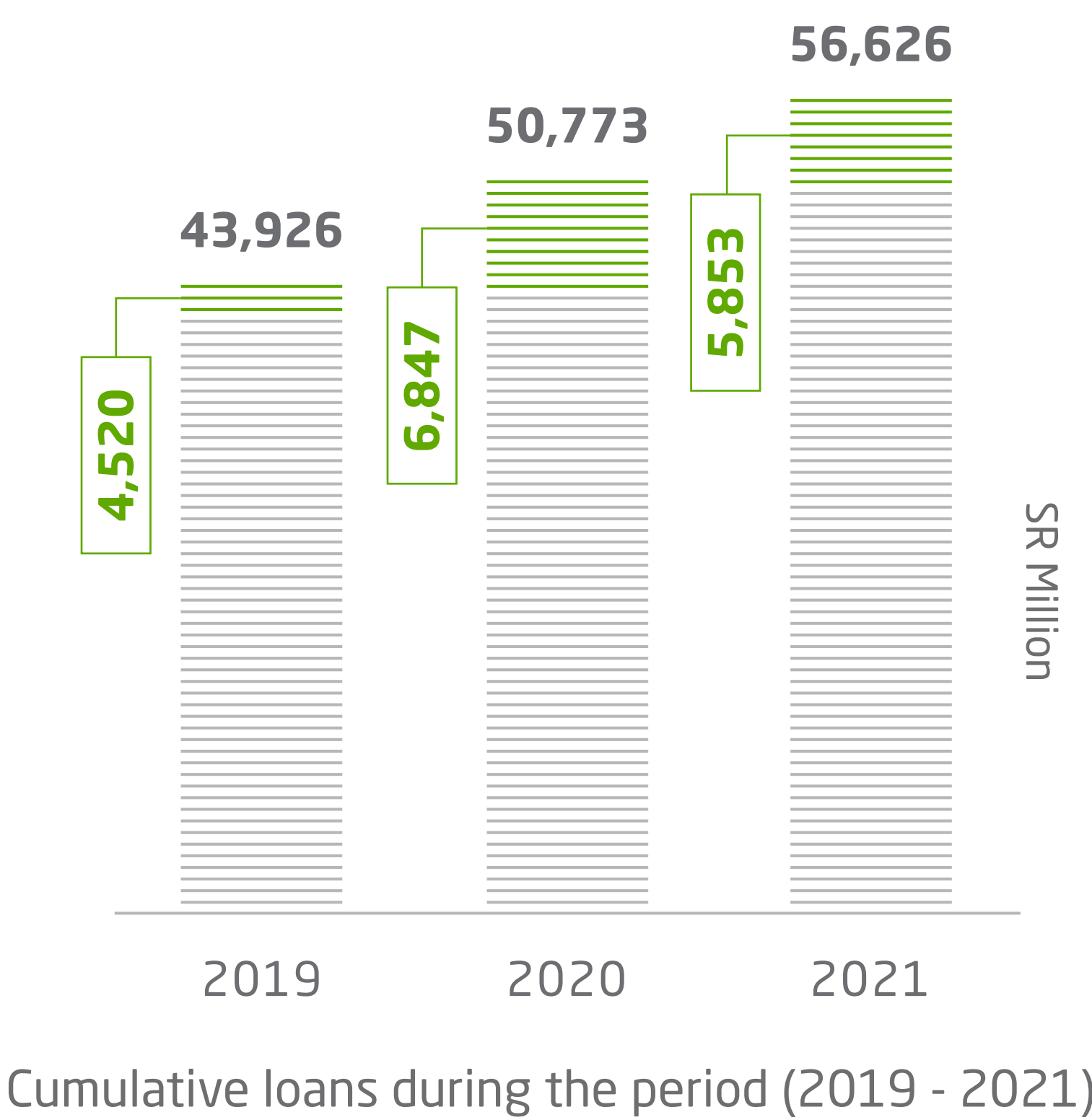
**23%**  
of the total  
number of loans



**56,626**  
SR Million



**29%**  
of the total value  
of loans





# Third: Approved Loans Classified by Financial Program and Product

Applying SIDF strategy to support the diverse industrial activity environment in the Kingdom on an ongoing basis; In an effort to create attractive and promising investment environments through which to motivate all investors in start-ups, promote digital transformation and increase the energy efficiency of existing projects; SIDF has launched an integrated package of specialized financing programs and products, including:

## 3.1 Financial Programs in 2021







## Financing programs from launch to 2021

2018



“Afaq” program since its launch in 2018



**35** Loans



**463**  
SR Million

2018



“Land and Loan” program since its launch in 2018

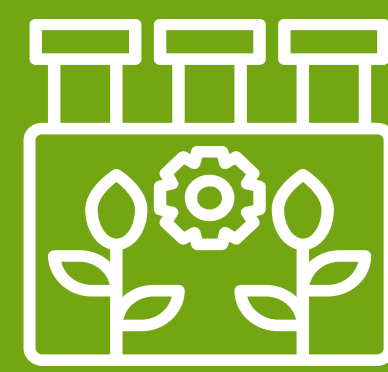


**16** Loans



**149.8**  
SR Million

2019



“Tawteen” program since its launch in 2019



**24** Loans



**1.3**  
SR Billion

2019



“Tanafusiya” program since its launch in 2019



**9** Loans



**429**  
SR Million

2019



“Mutajadedat” program since its launch in 2019”



**10** Loans



**48.4**  
SR Million





3.3 Financing Products in 2021

Working Capital Financing

 **15** Loans

 **95.3**  
SR Million

Multipurpose Financing

 **2** Loans

 **11.8**  
SR Million

Letter of Credit with  
Local Banks

 **22** Letters of Credit

 **97.8**  
SR Million

3.4 Financing Programs from launch to 2021

Working Capital Financing

 **138** Loans

 **1.5**  
SR Billion

Letter of Credit with Local  
Banks

 **143**  
Letter of Credit

 **900.5**  
SR Million

Multipurpose Financing

 **8** Loans

 **40.3**  
SR Million

Financing supply chains

 **1** Loan

 **64**  
SR Million







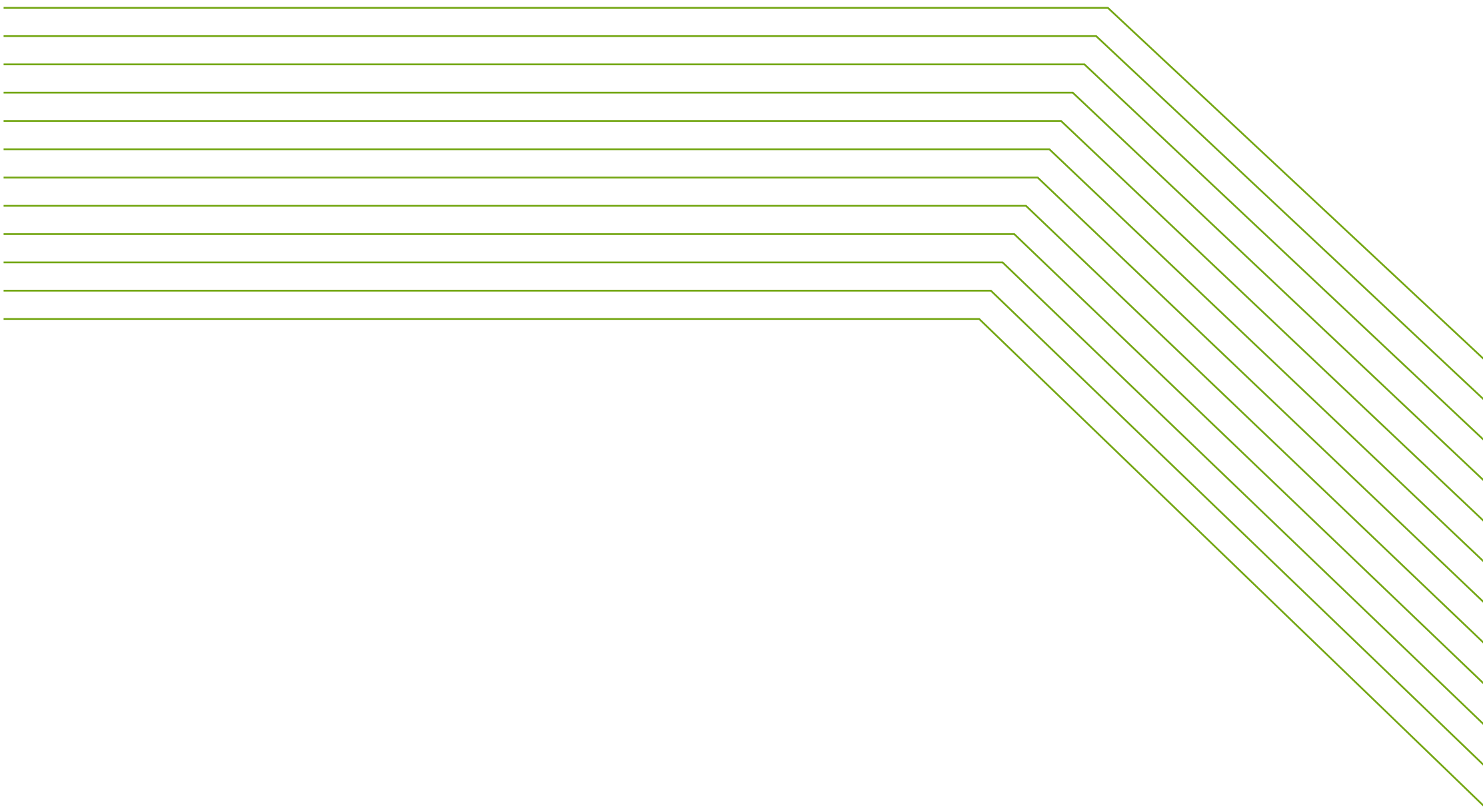
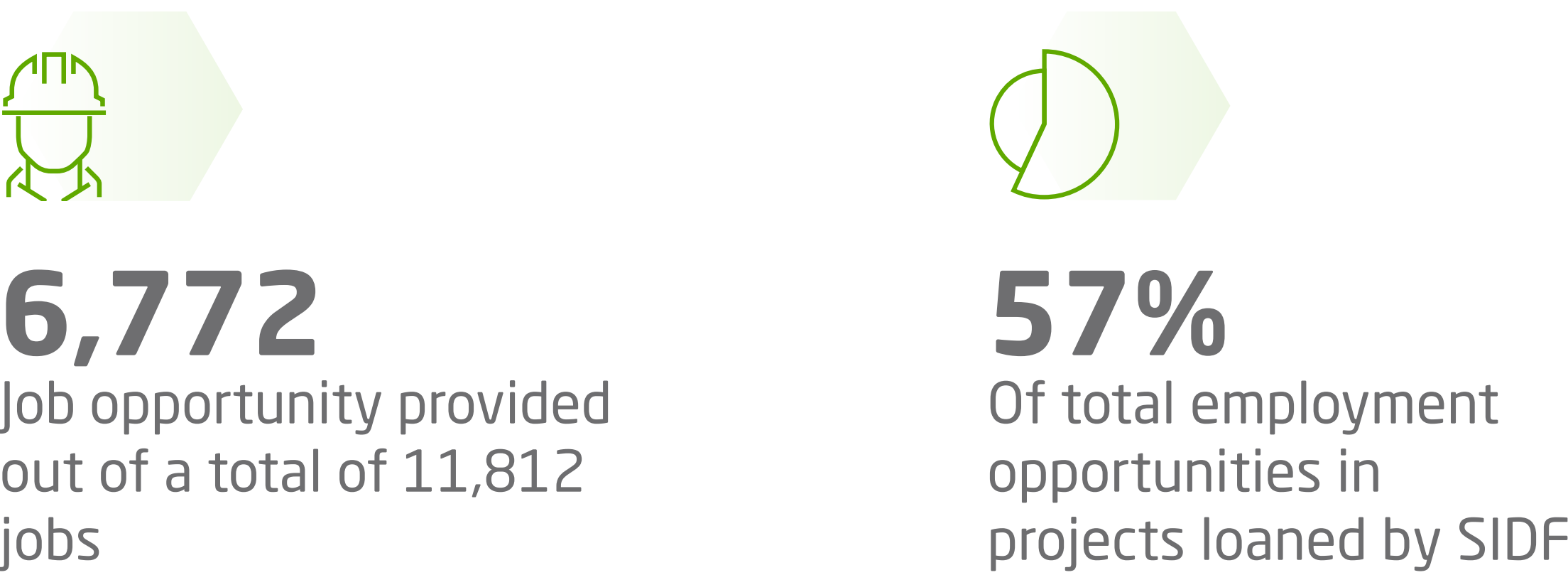
## Fourth: Financing Foreign and Joint Ventures

Since its inception, SIDF has been encouraging foreign and joint ventures industrial projects and achieving industrial ambitions in line with the aspirations of the Saudi Vision 2030. Attracting FDI is one of the objectives of the Strategic National Transformation Program to contribute to empowering the private sector, attracting and transferring the Kingdom’s modern technology and creating new jobs for citizens. In addition to its pivotal role in opening up global markets for national products, SIDF has paid particular attention to attract foreign investment, especially with long-standing global companies. Whether with Saudi partners or wholly foreign ownership, these projects are dealt with on the same basis as those owned by Saudi investors.

### 4.1 Approved loans for foreign and joint ventures during 2021



### Impact of financing foreign and joint ventures during 2021







4.2 Cumulative loans approved for foreign and joint ventures until end of 2021



**867**  
Loans



**18%**  
of the total number  
of approved loans



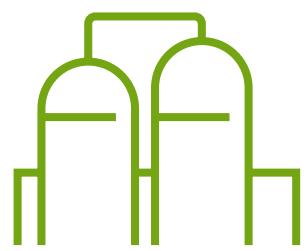
**77.9**  
SR Billion



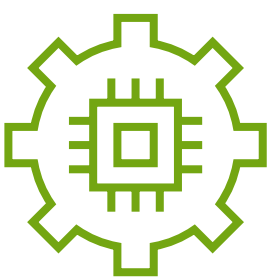
**37%**  
of the total value  
of approved loans



**43%**  
Average foreign  
partner's contribution  
to joint ventures



**63%**  
Projects in  
the chemical  
industries



**24%**  
Project in engineering  
industries



**7%**  
Projects in consumer  
industries





## Fifth: Projects Started Production in 2021



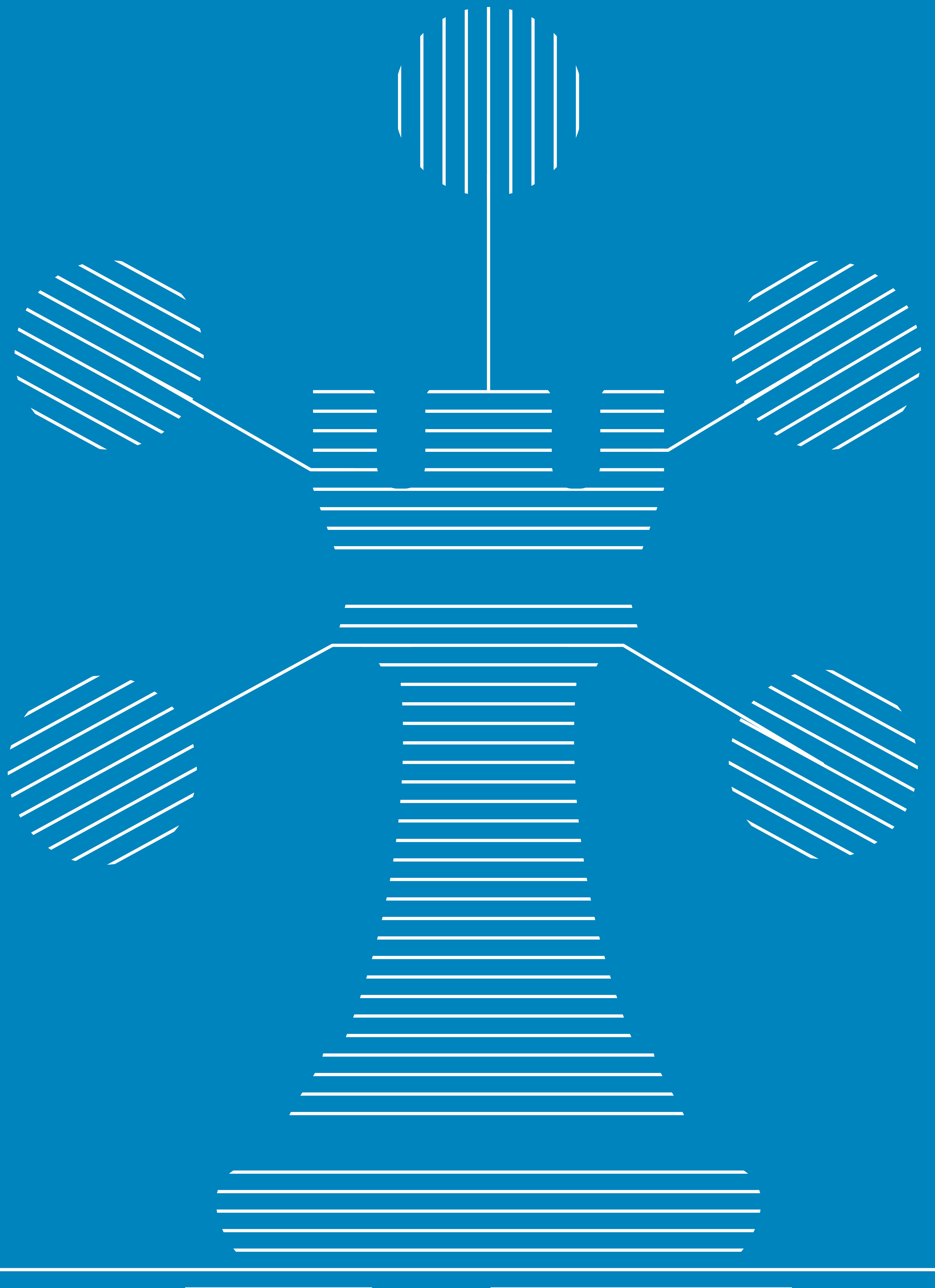
Sector	Value of Loans (SR Million)	Number of Projects	Estimated number of Employees
Chemical Industries	1,954	10	185
Consumer Industries	1,193	8	260
Building Materials Industries	383	4	761
Engineering Industries	89	5	429
Other Industries	95	2	56
<b>Total</b>	<b>3,713</b>	<b>29</b>	<b>1691</b>



05

## SIDF Strategy

Enabling the Kingdom's transformation  
into a leading industrial force and  
global logistics platform







## First: Strategic Direction

During 2021, SIDF efforts focused on achieving the three major priorities of a number of initiatives and projects, complementing the strategic direction of the SIDF since 2018 in supporting it to fulfill its role as a financial enabler for the National Industry Development and Logistics Program (NIDL). throughout the following axes:



## 1.1 Client centralization and SIDF role as a financial enabler for the National Industry Development and Logistics Program through:



### Approval of funding for vital projects

In pursuit of its strategic objective of supporting the industrial sector in the Kingdom, SIDF approved SR 11 Billion in funding for several projects and disbursed a total of SAR 10 Billion this year, setting a historic record in its successful journey.



### Electronic Mortgage Service

SIDF sought to facilitate procedures further for its clients by cooperating with the Ministry of Justice to activate digital mortgage and promissory note services, in a leading step for government procedures in this field.



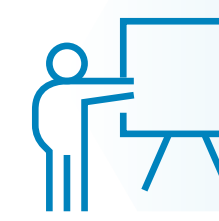
### Empowering the Future of National Industry

As part of its efforts to enable a vital and efficient future for the national industrial sector, SIDF launched the Saudi Advanced Manufacturing Hub (AMHUB) in collaboration with the World Economic Forum (WEF) to support advanced Saudi industrial entities by pooling global knowledge in the context of the Fourth Industrial Revolution.



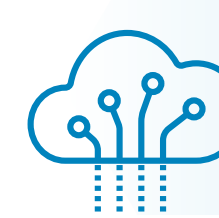
### SIDF won the award for implementing the initiatives of NIDL

SIDF's efforts in supporting and enabling the industrial sector in the Kingdom culminated when received an award to the entity that completed all its initiatives as part of the National Industrial Development and Logistics Program (NIDL) Awards.



### Launch of new financing products to empower the private sector

- Supply chain financing product in collaboration with SABB.
- Consultancy services product.
- Business incubator product in cooperation with King Saud University and Prince Sultan Development Fund.
- Logistic Land and Loan program with partners in the industrial and logistic services ecosystem.



### Digital Transformation of Customer Services

SIDF continued its successful digital transformation journey during 2021. As a result of its digital transformation efforts, SIDF was ranked by the Digital Government Authority among the top 5 financial and economic entities in the 9th digital transformation measurement; a continuation of the ecosystem's approach to providing the best services to clients. The Ministry of Industry and Mineral Resources launched a digital platform catering to investors through more than 26 services provided by the Ministry on the platform and another 26 services provided by other entities in the ecosystem.



### Launch the program "Leaders of Industry and Mineral Resources"

SIDF Academy, in collaboration with the Ministry of Industry and Mineral Resources, launched the program "Leaders of the Industry and Mineral Resources System", with the participation of several leaders of the industry system; In order to qualify leaders in the industry and mineral resources system, the program aims to promote the values of participatory leadership, innovation, and strategic thinking, and enable participants to secure the latest leadership practices in the industrial and mining sectors.





# 1.2 Working Environment



## Organizational Culture

Thanks to its efforts to promote and continuously develop the values of its institutional culture among all its employees, SIDF ranked in the top 70 in Asia on the “Great Place to Work” index for the year 2020. SIDF has also achieved the highest customer satisfaction rate since the index’s launch with a rate of 75% in 2021, ranking fourth among all government entities participating in the Kingdom of Saudi Arabia.



## Training and Qualifying Programs

In coordination and cooperation with the SIDF Academy, SIDF has trained and qualified SIDF clients and staff through several specialized training programs and seminars, with the participation of over 4,430 beneficiaries from more than 300 government and private entities in the Kingdom.



**4430**  
Beneficiary



**+300**  
Governmental and  
Private Entity

## Knowledge Management

In line with its efforts to establish an advanced knowledge management strategy in its work environments, SIDF held its “Knowledge Month” event in November over the course of 15 days. A total of 24 workshops were held with a total attendance of about 750 participants, with the aim of enriching the knowledge of SIDF cadres.



**24**  
Workshop



**750**  
Participants

## Continuous Scholarship Program

SIDF continued to implement its scholarship program in an effort to qualify and develop national cadres by giving them the opportunity to advance their scientific and academic paths, granting one of its employees a Ph.D. scholarship for the very first time.





## 1.3 Sustainability and Transition to Institutional Work



SIDF continues to develop its work mechanisms in accordance with a robust strategy in order to ensure its sustainability and prepare for the transformation and transition to integrated institutional work, through the following:

### Ensuring SIDF financial sustainability

As part of its efforts to ensure financial sustainability, SIDF collected SR 6.6 Billion during 2021, representing 147% of its annual target, thus setting a new record in SIDF's collection history.

### Establishing Institutional Risk Framework and Risk Appetite Policy

SIDF has established an Institutional Risk Framework and a Risk Appetite Policy, which will enable it to address the risks it faces in a systematic and governance-based manner. In addition to receiving the ISO Business Continuity Policy certificate, SIDF was rated the most committed in terms of compliance with the requests of the General Secretariat of the National Risk Council regarding the business continuity system, with a compliance rate of 95%.



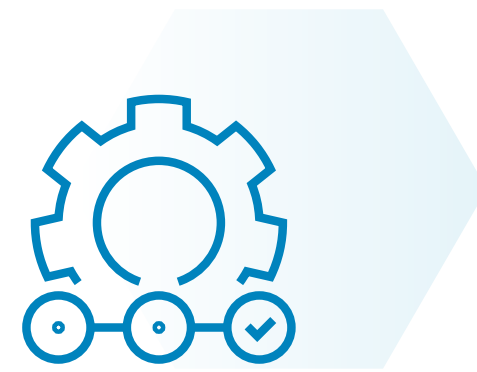
# Second: Advanced High-Quality Initiatives and Programs

In order to achieve its strategic vision, SIDF continued to innovate and launch several advanced, high-quality initiatives and programs, in addition to a range of specialized financing products, with the aim of supporting and developing various industrial environments in the Kingdom, including the following:



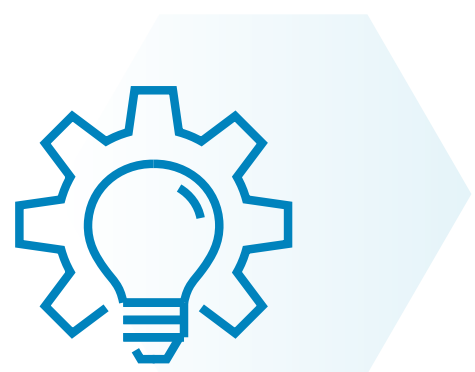
## "Land and Logistical Loan" Program

A new SIDF program dedicated particularly to investors in the logistics sector, in partnership with the Saudi Authority for Industrial Cities and Technology Zones (MODON), the Royal Commission for Jubail and Yanbu, and the King Abdullah Economic City. The program falls under the umbrella of SIDF's efforts to expand support for the logistics sector in the Kingdom by enabling investors in the sector to apply for a logistics loan and allocate a logistical plot of land for the project, as well as by facilitating procedures that allow investors to get support, thus helping them save time, effort, and money, and boosting investment in cities and industrial and economic zones.



## Supply Chain Financing product

In cooperation with SABB, SIDF launched a new financial product through which it aims at financing supply chains, to enable SIDF clients to obtain short-term financing that allows buyers to pay supplier bills in advance, with the aim of improving cash management for both buyers and suppliers. This product is characterized by a streamlined valuation process for longer buyer payment periods, enabling beneficiaries to settle supplier invoices in the form of advance payments. This in turn shortens the cash conversion cycle and enhances the relationship between buyers and suppliers.



## Industrial Business Incubator program

In partnership with King Saud University and Prince Sultan Bin Abdulaziz Development Fund, SIDF launched this program with the aim of establishing and supporting entrepreneurs' projects through a package of services dedicated to help industrial entrepreneurs establish and manage their start-up projects in a sound and comprehensive manner, from the early stages of establishment until they secure the necessary funding for these projects. The program also provides entrepreneurs with legal, accounting, finance, marketing, and engineering advisory as well as feasibility studies, and connects them to a network of potential investors for their projects.



## Consultancy Services

SIDF has launched a full range of consulting services aimed at achieving project sustainability for its clients, particularly entrepreneurs. Given the various challenges these enterprises face in the industrial sector, a team of specialized SIDF consultants provides support by studying the appropriate opportunities to improve performance and achieve growth and sustainability in these projects. SIDF's consulting services are provided by a specialized consulting team that works on developing business projects and improving their performance. Entrepreneurs are presented with a complete current situation analysis that identifies their enterprise's strengths, weaknesses, and opportunities for growth, and provides a set of applicable scientific recommendations and solutions to improve performance as required.



## Ask an Expert Initiative

Launched in collaboration with Monsha'at, this initiative provides immediate technical advisory from SIDF experts to investors in all SIDF-funded sectors via Nawafth, a platform created by Monsha'at with the aim of linking entrepreneurs to experts. The initiative provides all investors (SIDF and non-SIDF clients) with easy and quick access to SIDF's specialized experts in all supported sectors.



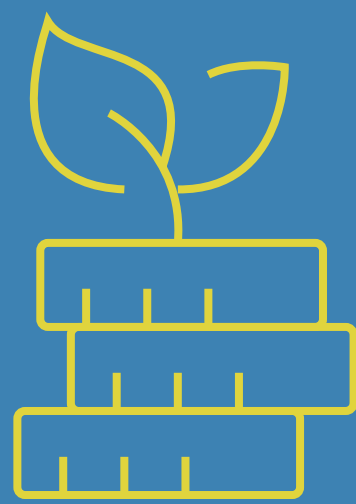
**6**  
Consultancy Services  
during 2021



# Third: SIDF Objectives and Performance Indicators

## SIDF Objectives for 2021

SIDF continues to apply best management and operational professional practices in accordance with the highest global standards of quality and efficiency in this field, in order to achieve its following strategic objectives:



### Increased economic impact of SIDF-funded projects

To maximize the economic impact of SIDF-funded projects, SIDF created a mechanism that measures the economic impact of SIDF-funded projects based on several criteria, including impact on GDP, local content rate, and other economic criteria, in alignment with the general framework of NDF.



### Stimulate investment in national priorities

SIDF works to stimulate private sector investments in national priorities and strategic sectors, to help advance the Kingdom's position as a global industrial and mining power in logistical services.

### Ensure Financial Sustainability

SIDF aims to enhance its long-term financial sustainability by improving financial efficiency and disbursement and collection processes.



### Achieving excellence in customer experience

SIDF aims to achieve excellence in customer experience; by linking the success of SIDF to the success of the client.

### Improving staff experience

SIDF is looking to establish a comprehensive approach that contributes to enhancing its work environment and improving staff experience.





## SIDF Key performance Indicators for 2021

In order to continuously develop performance and maximize the impact and achievement of all its activities and events, SIDF develops accurate and systematic performance indicators that represent its achievements and growing impact, as shown below:

#	Strategic Objectives	#	KPIs	Target 2021	Achieved 2021
1	Increasing the economic impact of SIDF-financed projects	1.1	The mechanism for calculating a baseline for indicators of the economic impact of SIDF projects	Yes/No	Yes
2	Stimulating investment in national priorities	2.1	Percentage of approved loans for 2021	100% (SR 11 Billion)	101% (SR 11.1 Billion)
		2.2	Percentage of the number of loans approved for SMEs from the total number of SIDF-approved loans for 2021	80%	74% (87/117)
		2.3	Percentage of amounts disbursed for 2021	100% (SR 10 Billion)	102% (SR 10.2 Billion)
3	Ensure SIDF financial sustainability	3.1	Percentage of amounts collected for 2021	100% (SR 4.5 Billion)	144% (SR 6.5 Billion)
4	Achieving excellence in customer experience	4.1	SIDF customer satisfaction index	65%	61%
5	Improving employees experience	5.1	Employee engagement index	70%	75%







## SIDF Targets for 2022

To complement its efforts over the past few years, SIDF work in 2022 will be based on the following axis:



### 1 - Customer Enablement

SIDF seeks to design client-centric programs, products, and services, in order to ensure that clients can reach all their objectives throughout their journey with SIDF. SIDF continues on this journey to become a trusted entity for all its clients. In 2022, SIDF's thematic focus will be on the following objectives:

- Enabling the potential clients by providing them with proactive and innovative support along with other entities.
- Activating the necessary tools that boost SIDF's decision-making process and awareness, while working on developing products and services.
- Continuously improving the quality of data at SIDF to leverage in the future to empower clients with knowledge.



### 2 - Institutional Work

While developing its many products during the past few years, SIDF established new administrations and departments specialized in top-grade documentation of SIDF activities and proper data storage. In this context, SIDF will focus in 2022 on the following objectives: enabling the potential clients through proactive and innovative support along with other entities.

- Developing SIDF's five-year strategy will help it achieve its development objectives in cooperation with the private sector.
- Enhancing the quality of work at SIDF to achieve institutional excellence through documentation and data storage to fill existing gaps and the continuous improvement of planning and budget.
- Maintaining knowledge management efforts, accelerating content creation to enhance data sustainability, and building SIDF's institutional memory. All of these efforts will be the cornerstone for a new era of data analysis in SIDF, which will contribute to enhancing the quality of internal operations.



### 3 - Work Culture

SIDF always seeks to ensure a strong work culture in the best possible work environment, through:

- Building an innovation lab and enhancing design tools for SIDF staff.
- Continuing to improve the SIDF work environment and culture through several initiatives, including the recognition of staff with stellar professional and leadership competencies, thus contributing to enhancing its institutional values.







#	Strategic Objectives	#	Key Performance Indicator	Target 2022
1	Increased economic impact from SIDF-funded projects	1.1	Average economic impact scores for approved projects	Promising
2	Stimulating investment in national priorities	2.1	Percentage of approved loans for 2022	100% (SR 12 Billion)
		2.2	Percentage of the number of loans approved for SMEs from the total number of SIDF-approved loans for 2022	80%
		2.3	Percentage of amounts disbursed for 2022	100% (SR 6 Billion)
3	Ensure financial sustainability	3.1	Percentage of amounts collected for 2022	100% (SR 6 Billion)
4	Achieving excellence in customer experience	4.1	SIDF Customer satisfaction index	65%
5	Improve employee experience	5.1	Employee engagement index	75%







# Fourth: Digital Business Development

The Fund continues to invest the best possible means and resources to develop its work in an integrated manner in such a way as to enable it to achieve all its strategic objectives; through the following:

## 4.1 Digital Solutions & Applications

As part of the Digital Transformation Plan and the IT Organise the House Program, SIDF continues to support business departments through the IT department to develop and implement new solutions that boost SIDF operations, reporting, and communications through:

### Organize the House (OTH) program



Operational excellence of information technology



Automation and Creativity



Comprehensive Infrastructure and Automation



Security and Access Control



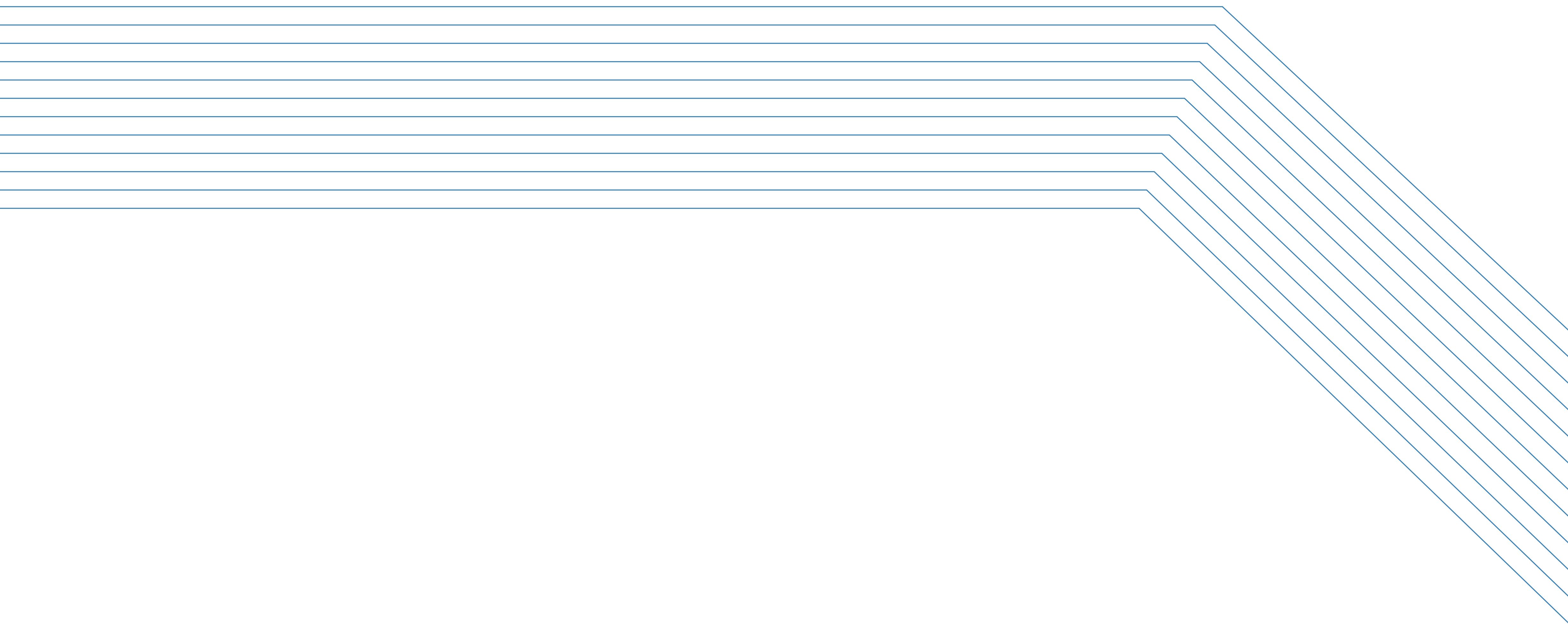
Preparation of reports and logical analysis processes



Expedite lending management system operations



Information Technology and Data Governance







## 4.2 Lending and Customer Relations Management System

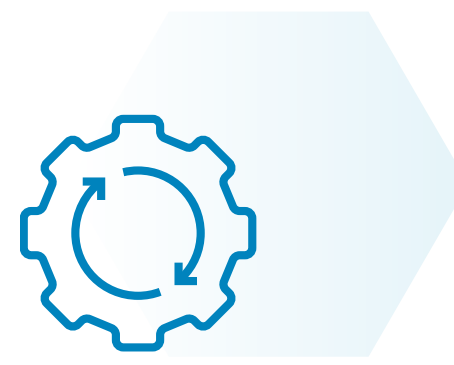
SIDF's digital transformation helped increase the number of approved loans by 38% and the capacity to process and consider loans by threefold, in addition to reducing the life cycle of loan procedures by 53%, from 11 months to 5 months only, in accordance with international standards. A number of additional services were developed in the loan and customer relations management system, including more automated procedures, several e-services for beneficiaries and employees, and facilitated access to these services from various desktop and smart devices, with the aim of achieving the following goals:



Launching electronic contracts and promissory notes



Fixed Mortgage Assets



Improved funding plan



Improved mortgage service



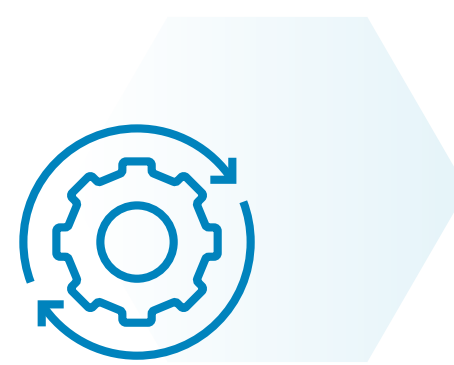
Enhanced system security for customer and SIDF data protection



Improve Service Level Agreement



Risk Assessment Control Tool



Improved collection demand



Improve secure storage request



Automate collection letters and e-signatures



SIDF KPI dashboard



Improve customer experience (e-loan)



Complete connection procedures with relevant government entities.

to facilitate customer and beneficiary experience (before and during the loan application procedures and after obtaining the loan)  
Relevant entities such as:







### 4.3 Automation of SIDF Products

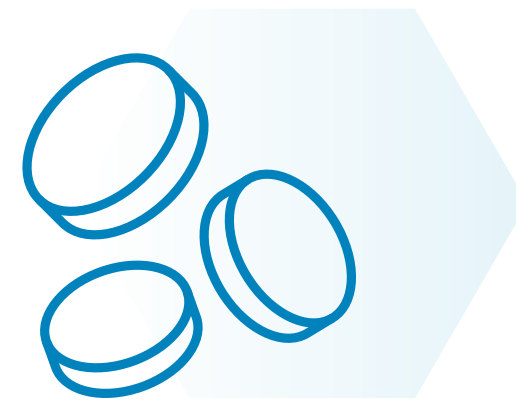
SIDF continued to automate all its launched products to facilitate access for all beneficiaries. Many new SIDF products, systems, and services have been automated, in line with the SIDF business strategy and the outputs of the National Industrial Development and Logistics Program (NIDLP) to expand the support it provides beyond the industrial sector to include all sectors targeted by the NIDLP such as the energy, mining, and logistics sectors, all while continuing to support the industrial sector.



Linking transactions for investors (real estate mortgages) with the Ministry of Justice



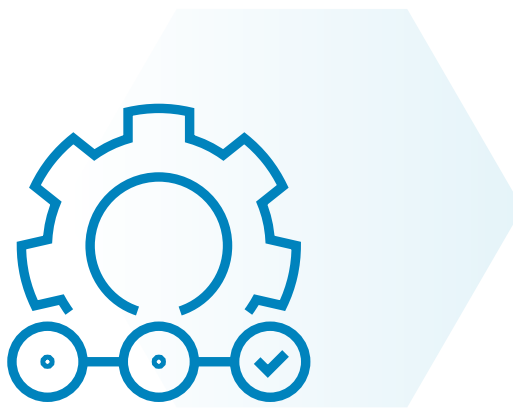
1st government entity to activate e-signature of contracts in cooperation with the Ministry of Justice



Adding a digital LoC service in cooperation with Riyadh Bank



Financial data mapping for Bayan statements



Supply Chain Financing product (Phase 1)



Developing Logistic Land and Loan program with three entities

الهيئة الملكية للجبيل وينبع  
Royal Commission for Jubail & Yanbu



هيئة المدن والمناطق الاقتصادية الخاصة  
Economic Cities and Special Zones Authority

KAEC  
مدينة الملك عبدالله الاقتصادية

### Digital Transformation



**53%**  
Reduced the duration of loan procedures



**55%**  
Reduced loan duration (11 to 5 months)



**86%**  
Reduced duration of contract signing (from 3 weeks to less than 3 days)



**2600**  
Number of contracts and documents approved electronically



**+190**  
Signing contract electronically



**552**  
Promissory notes for companies and individuals







# SIDF journey in digital transformation

## 9th measurement (2021)

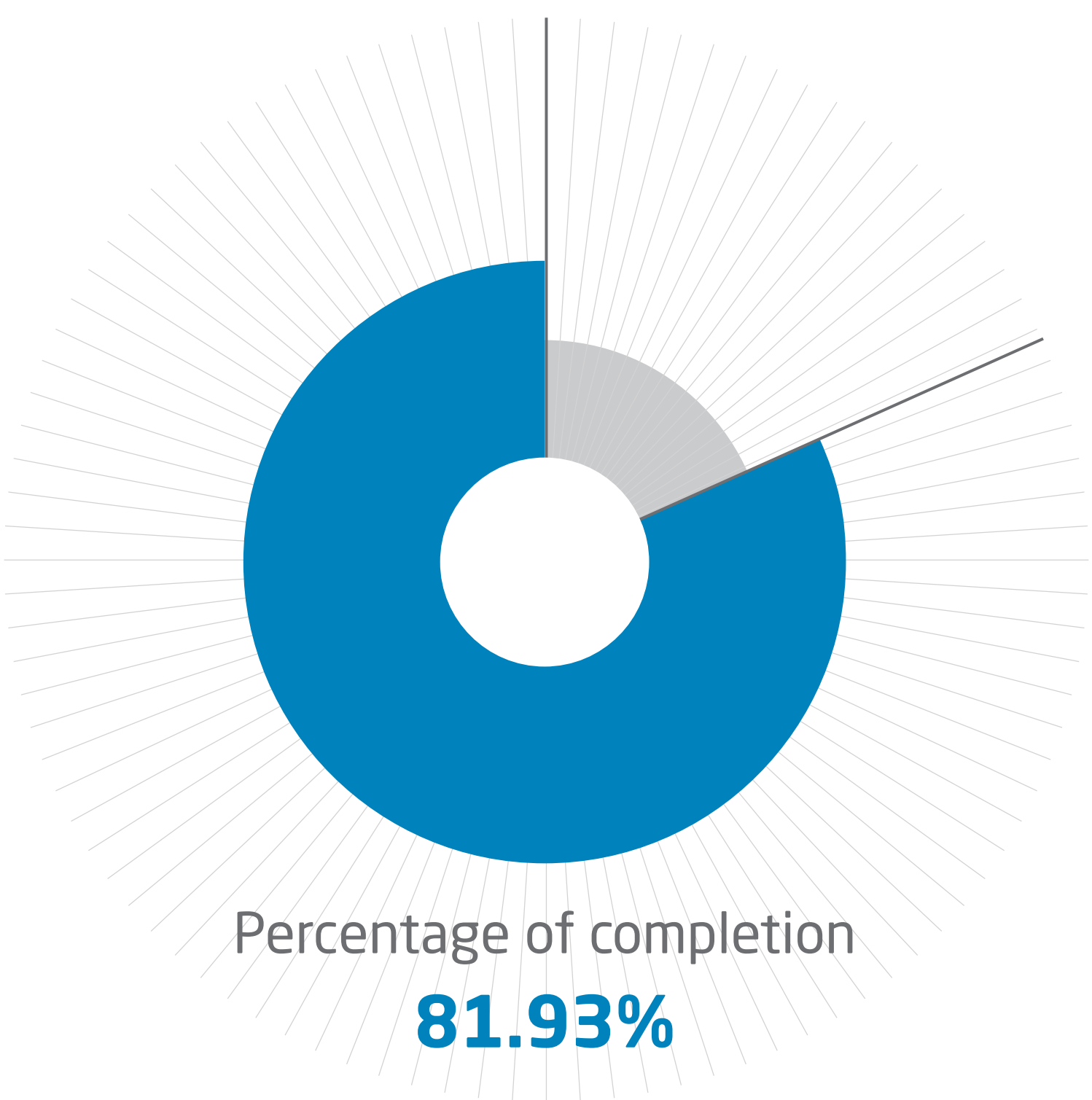
Maturity Level  
Integration



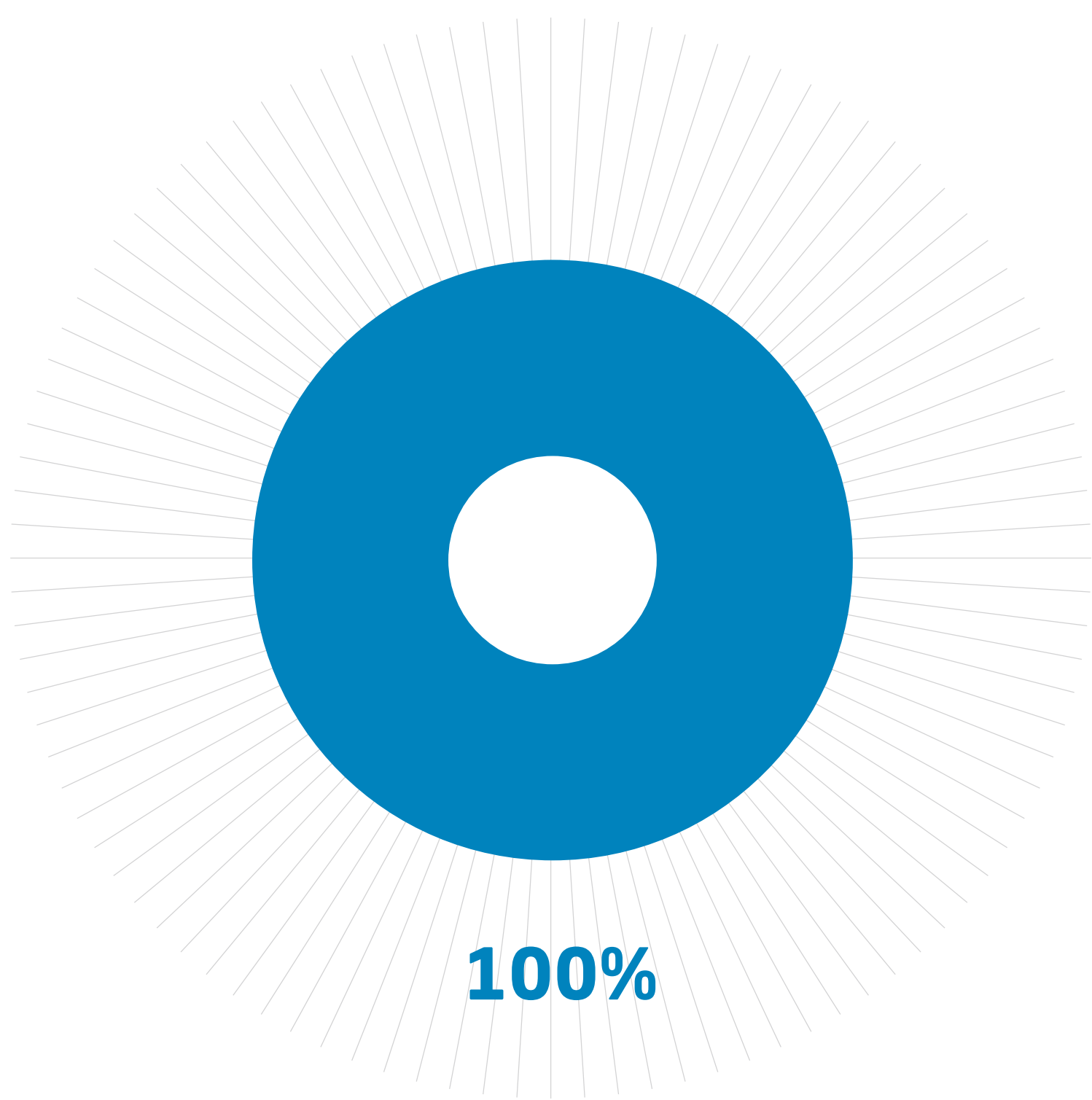
Achieved **12th place** at the level of entities in the Kingdom of Saudi Arabia



Achieved **4th place** at the level of the economic and financial sector



Maturity Level in Digital Electronic Services (Marsad)



## 8th measurement (2019)

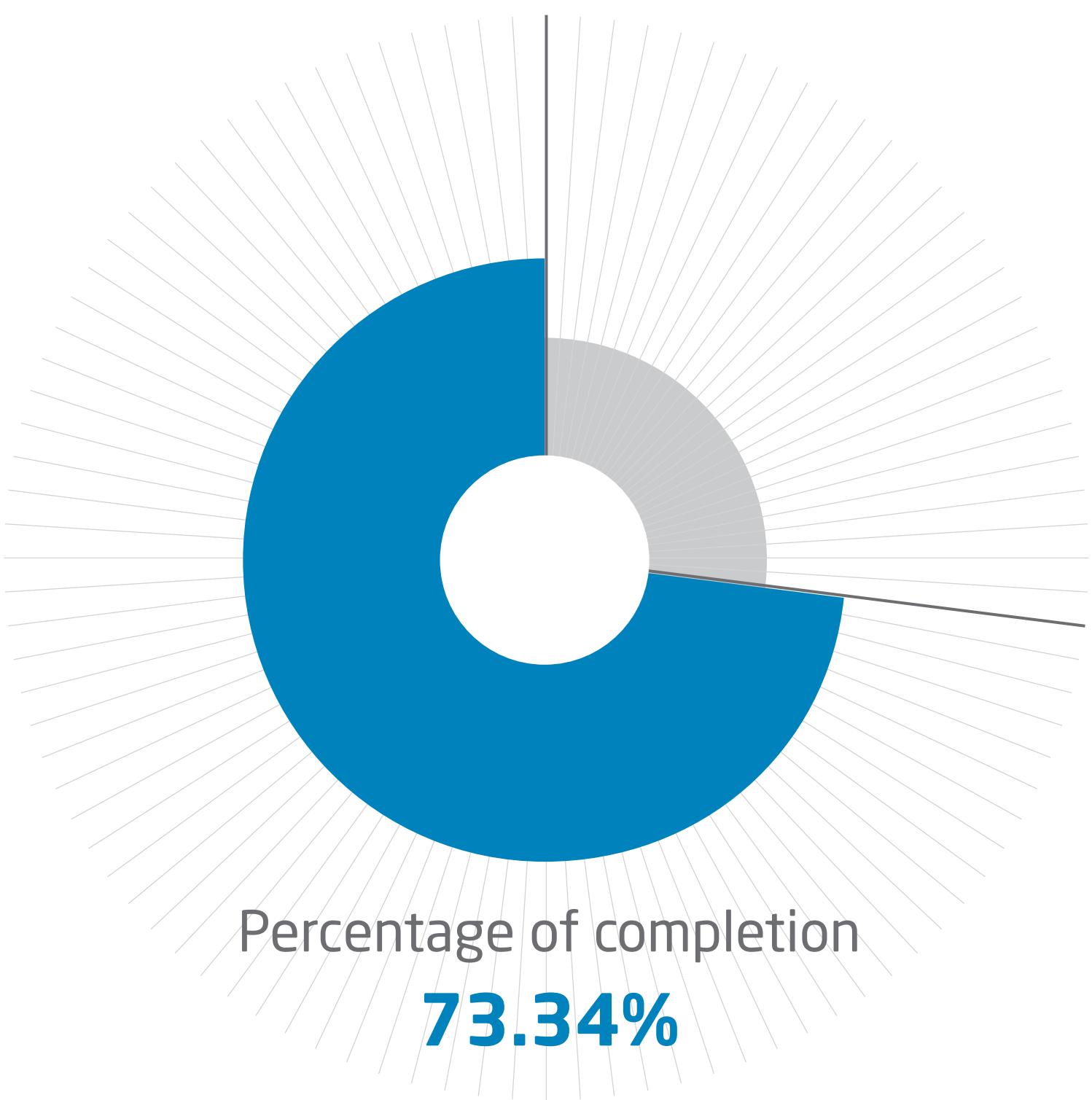
Maturity Level  
Integration



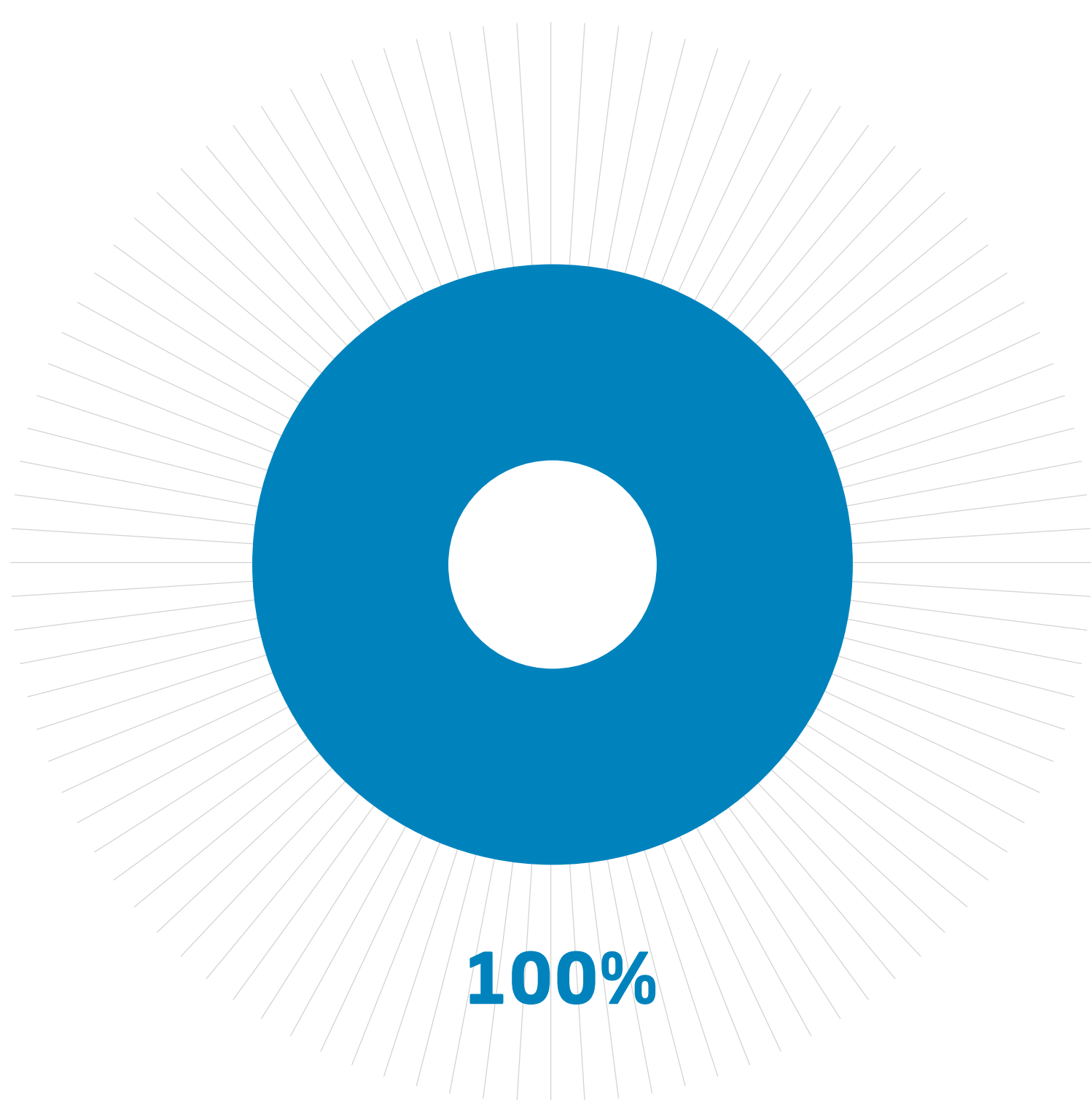
Among the top twenty-two (22) entities in Kingdom of Saudi Arabia



Among the top 3 at the level of the economic and financial sector



Maturity Level in Digital Electronic Services (Marsad)





## 4.4 Sidf Strategic Partnerships and Agreements



In line with the outputs of the NIDLP, SIDF developed its business strategy to become the financial enabler of industrial transformation in the Kingdom. SIDF aligned its strategy with the aspirations and objectives of NIDLP to cover the financial and advisory requirements of the targeted sectors. Accordingly, SIDF expanded the support it provides beyond the industrial sectors to include all sectors targeted by NIDLP such as the energy, mining, and logistics sectors, all while continuing to support the industrial sector.

SIDF also collaborated with government entities to develop programs and strategies that enable the industrial, energy, mining, and logistics sectors, as well as to support and encourage industry and other economic activities that benefit the Kingdom, provide innovative solutions to ensure the growth, development, and improved performance of the local industry landscape in order to achieve sustainable investment returns in the industrial sector, develop the added value of the local economy by supporting local products, promote non-oil exports, provide integration between the industrial sector and other sectors, increase the participation of Saudi talents in the industrial sector, attract foreign capital, and transfer and localize technology.



## National and International Partnerships



### Saudi Advanced Manufacturing Hub (AMHUB)

SIDF launched the Saudi Advanced Manufacturing Hub (AMHUB) in collaboration with the World Economic Forum (WEF) following its selection by WEF to host the regional platform. AMHUB is the first platform of its kind in the Middle East and the 13th in the world, as an extension of WEF's Advanced Manufacturing Hub Network. The platform was officially launched in November 2021 in the presence of 24 founding members of the platform from government agencies and private sector companies interested in advanced industry, as well as universities and national research centers. Members have also identified and will focus on the platform's three main priorities:

- Access to talent, develop them and provide them with the necessary motivations.
- Supporting SMEs in their journeys towards digital transformation.
- Transfer technology and innovations to develop local factories..



### Signing MoU with SASO

This MoU aims to qualify and empower SIDF clients to obtain accredited quality certifications, such as ISO certificates, in order to improve the quality and sustainability of projects.

It also aims to intensify workshops for local manufacturers in order to raise awareness of the importance of the SASO Quality Mark and apply the required specifications and standards.



الهيئة السعودية للمواصفات والمقاييس والجودة  
Saudi Standards, Metrology and Quality Org.



## Strengthen partnerships and relationships with customers

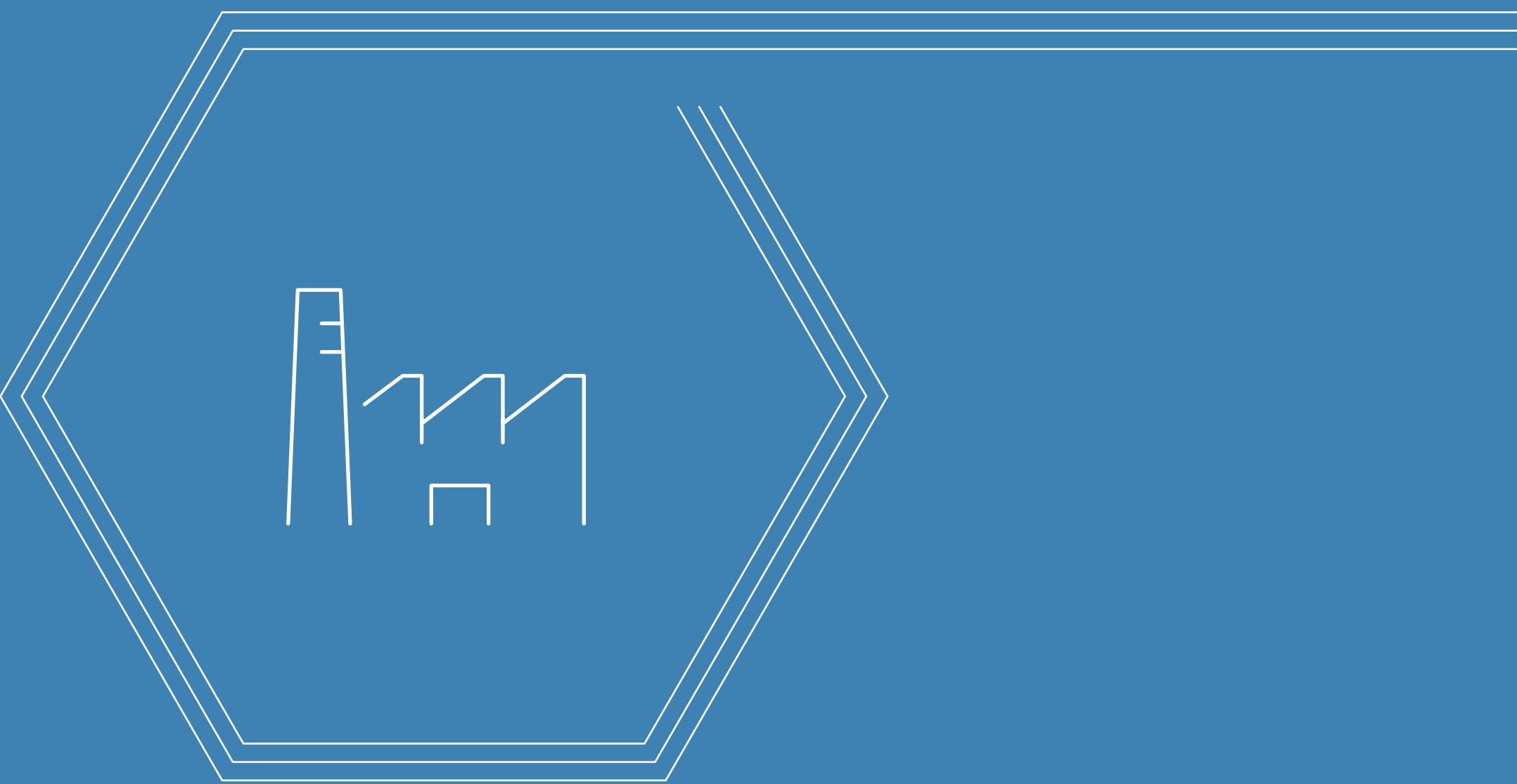


### Operational Excellence Improvement Initiative

For the launch of this initiative, SIDF leveraged its own expertise. A glass and aluminum factory facing challenges in exploiting its full production capacity was selected for the pilot launch of the initiative. The SIDF team cooperated with the factory team to successfully launch manufacturing processes and restructure the factory, which contributed to improving operational efficiency and increasing the factory's production capacity by 50%, the equivalent of SAR 13 Million in additional sales. The SIDF team is currently selecting several other factories to apply the same methodology after its successful pilot launch, with the aim of increasing operational efficiency in factories, enhancing their competitive value, and gaining mutual experience.

### Energy Efficiency Roadmap Initiative

SIDF conducted an integrated and comprehensive energy efficiency study in the iron manufacturing sector in the Kingdom, with the aim of identifying opportunities to raise the energy efficiency of each factory assessed by the specialized SIDF team, making recommendations, and setting expected targets to reduce energy consumption, to help factories comply with the objectives of the Saudi Energy Efficiency Center, motivate investors to adopt modern energy efficiency technologies, and incentivize investors to benefit from the SIDF financing programs serving this objective.



### Non-performing projects

The challenges faced by clients in paying their financial obligations to SIDF prompted the latter to seek solutions to support these projects and create a financing product to acquire non-performing assets to be used by investors interested in purchasing existing (non-performing) projects. SIDF also launched several initiatives in cooperation with several entities working in the field to find appropriate solutions for reoperating and developing these factories.



## Fifth: Certificates and Technical Awards

As a culmination of its successful journey, SIDF has received several distinguished certificates and Technical Awards, reflecting its excellence in integrated professional performance with the ultimate goal of achieving its strategic objective to become the key enabler of the national industry sector in order to stimulate the diverse industrial landscape and place the Kingdom's position among the best major industrial countries in the world. Below are some of the certificates and awards recognizing SIDF's excellence:







 <p>Integration level in government digital transformation (Qiyas)</p>	 <p>Steve Gold Awards for Innovation in Applications and Information in the Middle East and North Africa (MENA)</p>	 <p>Authorized service provider for the National Center for Digital Certification.</p>
 <p>IDC Award for Excellence and Creativity in Digital Innovation</p>	 <p>100% maturity level at Government Services Observatory</p>	 <p>Certificate of National Overall Reference Architecture (NORA) Level 3</p>
  <p>SAP Initial Certificate of Customer Center of Expertise (CCoE)</p>	 <p>Choosing the Information Technology strategy from best practices in Saudi Arabia</p>	





06

# Human Resource Development

Upskill, Enrich, Support, Qualify





# Human Resource Development

As part of its efforts to develop the work environment across its channels and create an attractive competitive environment for top national talents and expertise, SIDF continues to apply the best international quality and efficiency standards. In fact, SIDF has realized several outstanding achievements in this context in 2021, including:





## First: Organizational Culture

Being awarded the Great Place to Work certification for the second year in a row after competing with hundreds of entities at the Arab and international levels, achieving remarkable ratings in the Kingdom and Asia. SIDF has also achieved the highest client satisfaction rate since the launch of this indicator with a rate of 75% for 2021, ranking fourth among all participating government entities in the Kingdom. This further enhances SIDF’s position as an ideal work environment that attracts the largest number of distinguished national talents and competencies.



## Second: Recruitment

By the end of 1442 - 1443 A.H., the total number of male and female SIDF employees reached 961, of which 923 are Saudi nationals, occupying a range of leadership, supervisory, specialized, professional, technical, and administrative support positions. As such, the percentage of Saudi employees reached 96% of the total number of employees. During the same year, SIDF attracted and employed 161 employees across departments and divisions, concentrating on departments that carry out main activities, to contribute to achieving SIDF’s main objectives in supporting and developing the industrial sector in the Kingdom.



**961** employee  
by end of 2021



**161** employee  
attracted  
across different  
departments



**96%**  
percentage  
of Saudi  
employees





### Third: Training and Qualifying

The Human Resources Department applies modern standards in qualifying and training Saudi cadres through training programs that meet career progression plans in various SIDF job categories, tackling all areas related to the nature of business functions. Programs held for Saudi workers inside and outside the Kingdom during the year of the report, included specialized basic courses, short courses, panel discussions, professional seminars and conferences, exhibitions, training courses, and practical on-the-job trainings, adjusted to meet COVID19-precautionary measures. These programs are as follows:



**6** employees  
trained at Modon



**8** interns  
trained at Engie



**45** Nokhab  
program trainees



**7** employees  
trained at Roland  
Berger



**3** employees  
trained at Jacobs



**8** employees  
trained at IKEA



**10** employees  
trained at French  
Agricole bank



**30** Master's scholarship  
candidates who pursued their  
degrees outside the Kingdom,  
10 of whom enrolled in the top  
10 universities in the world



**120** employees  
orientation sessions  
in partnership with  
distinguished training entities



**55** cooperative training  
candidates from Saudi  
universities



**591** employees  
attending general and  
specialized courses



**12** employees  
with accredited  
professional certificates



**18** employees  
in HiPo program







## Fourth: SIDF Academy

### Academy Vision

To be the primary knowledge hub building human capabilities in priority sectors essential to achieving industrial evolution in the Kingdom.

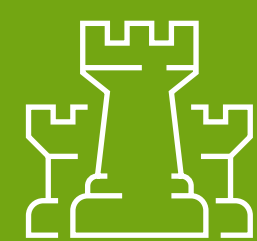
### Academy Mission

To build human capabilities within the industrial ecosystem SIDF employees, customers, and other institutions - through holding world-class programs in partnership with leading training and learning institutions and adopting the latest methods that reflect SIDF's main functions in line with national goals.

### Academy Strategic Objectives



Developing specialized programs that focus on SIDF main functions.



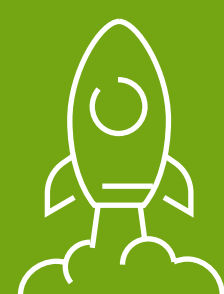
Strategic alignment with government and private entities within the industrial ecosystem



Building human capabilities to serve SIDF industrial development needs, SIDF customers, and the industrial ecosystem



Concluding strategic partnerships with leading local and global learning and educational institutions to enhance the learning journey.



Building a matrix of skills and competencies in line with national goals.





With the aim of building, designing, and delivering specialized academic programs across several fields, SIDF launched its own SIDF Academy. This pioneering move contributes to achieving the visions of the industrial ecosystem leadership in the Kingdom, which aims to turn SIDF into a national expertise powerhouse offering advanced specialized programs that keep pace with modern trends and align with the needs of the development industrial system, thus creating a positive and lasting impact on the development of cadres and improving the efficiency of government and private sector employees in the industrial field. The Academy's programs are offered in three main tracks:



Financial Path



Entrepreneurship and Business Path



Digitization and Innovation Path

The SIDF Academy played a vital role in supporting SIDF's operations and ensuring their continuity, despite the significant challenges that SIDF faced due to the restrictive measures to counter the Covid-19 pandemic, which led to the closure of businesses across the Kingdom and the world in 2020. The SIDF Academy has fulfilled its commitment to provide high-quality training programs to SIDF employees as well as non-SIDF individuals and companies working in the industrial field through the establishment of a remote training platform. With the severe impact that travel restrictions had on the overall availability of external training opportunities in the Kingdom, SIDF Academy took a proactive approach to unique and valuable learning expertise by forming strategic partnerships with world-leading educational institutions.





# Beneficiaries of the Academy Program

The Academy offers various specialized training programs targeting each of the following segments:



## Achievements of the Academy

The Academy has realized several distinguished achievements that left a positive impact on work processes across SIDF channels, namely:

**1- Building, designing, and providing high-quality academic programs aimed at creating an impact on the development of cadres and improving the efficiency of government and private sector employees in the industrial field.**

### Impact of this achievement

- Identifying training needs to achieve the objectives of the industrial ecosystem and empowering employees in the appropriate industrial sector training fields.
- Increase the knowledge, skill, and competence of participants, which contributes to professional and institutional development.
- Contribute to the development of talents from the private sector working in the industrial ecosystem in line with Vision 2030. Empowering fresh graduates through the Nokhab program, a professional training program leading to an employment opportunity.
- Providing programs for all levels of executives, directors, and managers to achieve the concept of inclusive training.
- Designing and delivering an industrial leaders program that creates a common language and values and unifies efforts to achieve participatory goals and aspirations.

### 2- Building strategic partnerships with international and local educational entities

In its efforts to find and create successful cooperations with prestigious international and local entities for integrated development, growth, and empowerment of government and private sector employees working in the industrial field, SIDF Academy signed agreements with 13 educational and training entities. Most prominent among these entities were the Stanford Center for Professional Development, the London Business School, MIT and Berkeley universities, the Silicon Valley Innovation Center, the GCC Board Directors Institute (GCC BDI), and the Misk Academy.

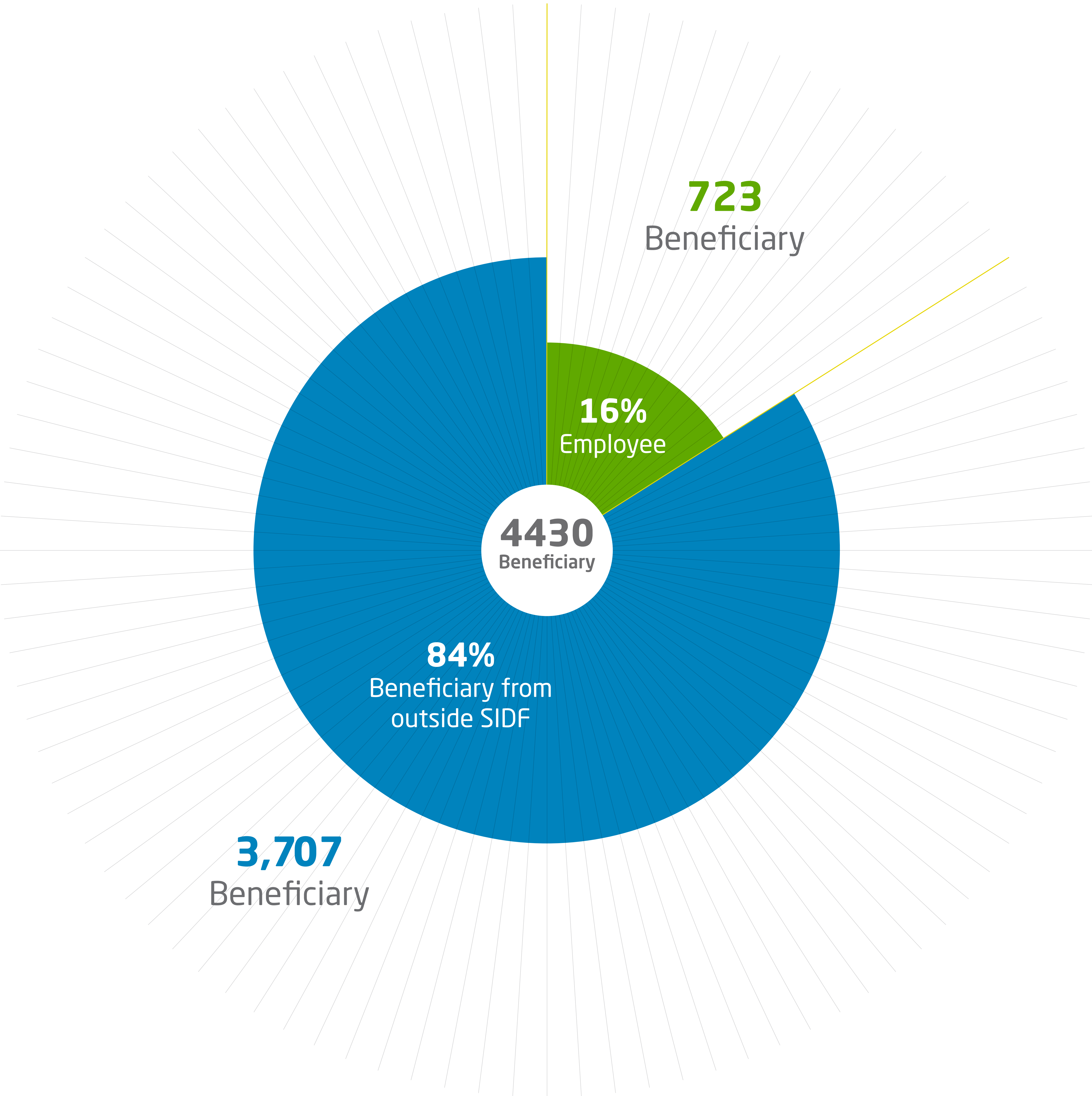
### Impact of this achievement

- Expertise and knowledge sharing with leading international entities in specialized training fields.
- Integration between SIDF and beneficiaries to introduce and advance key knowledge, concepts, and skills.





# Beneficiaries of the various specialized programs at the Academy in 2021





## Industry and Mineral Resources Leaders' Program



In cooperation with the Ministry of Industry and Mineral Resources, SIDF Academy launched the Leaders of the Industry and Mineral Resources Ecosystem training program, under the patronage of His Excellency the Minister of Industry and Mineral Resources, Mr. Bandar bin Ibrahim Alkhorayef.

This program seeks to qualify 45 leaders of 12 entities working in the industry, mineral resources, and local content ecosystem and the NIDL program. The program also aims to promote participatory leadership, innovation, and strategic thinking, introduce participants to the latest leadership practices in the industrial and mining sectors, align future and modern trends, and promote effective communication between leaders of entities working in the ecosystem and their supporting and enabling entities.

The 7-module training program started in November 2021 and is expected to be completed in November 2022. These training modules aim to develop the leaders' communication networks, keep up with the leadership's aspirations, conduct guidance sessions to develop leadership capabilities, build institutional strategies for entities, and achieve harmony among them to ensure the goals of the ecosystem are achieved. In addition, the modules include field visits to major global companies in the Silicon Valley, in addition to panel discussions on the latest topics in the fields of industry and mining, as well as innovation enablers.

The program is offered in partnership with leading international scientific and training entities, such as Larwood Consulting, the Stanford Center for Professional Development, the Silicon Valley Innovation Center, and MIT.



# SIDF Young Leaders Council

## Scope of the Council's work

The scope of the Young Leaders' Council is structured around four main areas, as follows:

 <p><b>Scope of advisory solutions</b></p> <p>The Council provides advisory solutions through in-depth studies and research for various departments through the program.</p>	 <p><b>Scope of development of the SIDF work</b></p> <p>The Council provides recommendations by conducting comprehensive studies to identify improvement areas within SIDF.</p>
 <p><b>Scope of Community Impact</b></p> <p>Through the program, the Council promotes the work environment and represents SIDF in internal and external activities that inspire and motivate youth.</p>	 <p><b>Scope of the Council's sustainability</b></p> <p>Through the program, the Council ensures a smooth transition for new members to maintain the Council's operations and achievements.</p>

## Main Achievements of the Young Leaders Council in 2021:

During the past fiscal year, the Council has achieved a number of outstanding achievements.

 <p><b>Innovation Lab Project</b></p> <p>The Council played a pivotal role in the development of the innovation strategy and an operational framework for the Innovation Lab, in cooperation with representatives of the Human Resources Department and the consultant company. Innovation Lab design and execution works were also launched on the seventeenth floor of the new SIDF building.</p>	 <p><b>Follow-up on SIDF New Building Project</b></p> <p>The Council continued to follow up on the internal and external design works for SIDF's new building at King Abdullah Financial District, in coordination and cooperation with the project team.</p>
 <p><b>Updating Safety and Security Procedures</b></p> <p>The Council continued its active efforts to develop procedures for the safety of vehicles in the new building project, in cooperation and coordination with the Support Services Department.</p>	 <p><b>Strengthening Relations with Youth Councils</b></p> <p>Reinforcing the relationship between the Council and other youth councils such as YLab at Aramco, in coordination with other SIDF departments and teams.</p>
 <p><b>Social Initiatives</b></p> <p>The Council has undertaken several distinguished initiatives within the framework of SIDF's social initiatives, such as its active participation in Al Nahda Society's (Mostakbali program), which included a presentation on SIDF departments and empowering Saudi youth.</p>	



07

# Industry Study:

## KSA Renewable Energy Sector





# Overview of the renewable energy sector in the Kingdom

## Introduction

Saudi Arabia is blessed with abundant natural resources of wind and solar irradiation, which offers the potential for incorporating renewable energy into the country’s energy mix as well as contributing to the transition of its economy away from fossil fuel dependency. This reflects the global shift towards “Net Zero”, where the amount of greenhouse gas produced is balanced or, ideally, exceeded by the amount removed from the atmosphere. This case study aims at offering an overview of the Renewable Energy sector in Saudi Arabia.

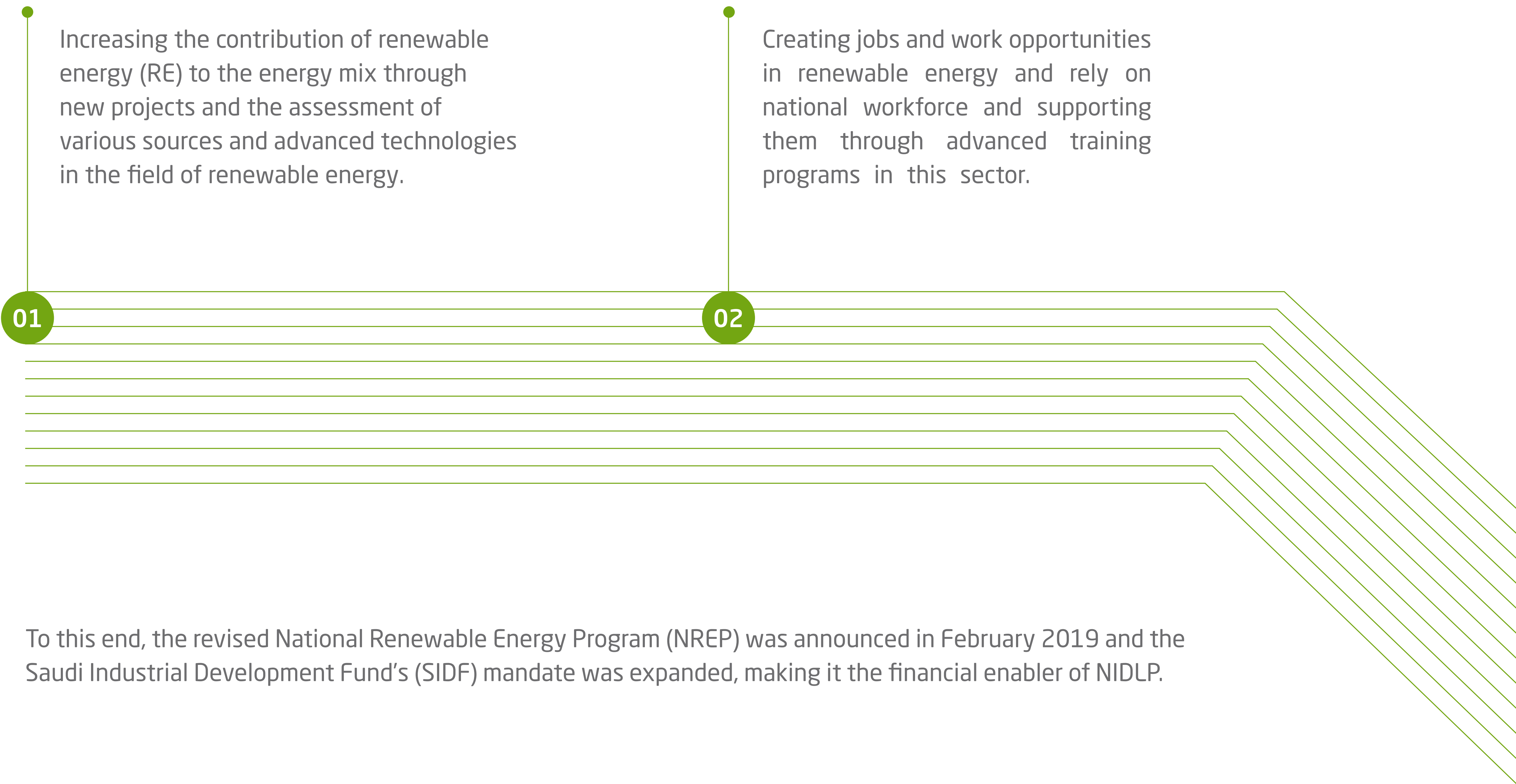






# The National Renewable Energy Program (NREP)

One of the enabling programs of Vision 2030 is the National Industrial Development & Logistics Program (NIDLP) whose strategy for the renewable energy (RE) sector aims at:



To this end, the revised National Renewable Energy Program (NREP) was announced in February 2019 and the Saudi Industrial Development Fund’s (SIDF) mandate was expanded, making it the financial enabler of NIDLP.

NREP has set a target of 58.7 GW of installed capacity by 2030, split as follows:



**40**  
GW solar  
photovoltaic (PV)



**16**  
GW onshore  
wind



**2.7**  
GW hybrid generation  
+ storage





These projects have been split 30/70 between the Ministry of Energy (MoE) and the Public Investment Fund (PIF), respectively. As follows:

**1. MoE projects (30%):** are tendered and awarded based on the lowest Levelized Cost of Energy (LCOE), measured in c/kWh. The following are the tenders launched by MoE:

2017	2019
Round 1 of the MoE pipeline (300 MW PV, 400 MW wind) was tendered in February 2017, with the Sakaka PV plant (winning bid 2.34 c/kWh) being commissioned in November 2019 and the Dumat-al-Jandal wind farm (winning bid 2.13 c/kWh) completed in 2021.	Round 2 (1.8 GW PV) was tendered in June 2019 and awarded in April 2021. It is worth noting that the Faisaliah Phase 1 project (600 MW) received a world record low bid of 1.04 c/kWh.
2020	2022
Round 3 (1.2 GW PV) was tendered in January 2020, just before COVID-19 hit, and the final shortlist was announced in October 2021.	Round 4 is expected to be tendered in Q2 2022 and the tender should include the Kingdom's second wind project (Yanbu 800 MW) as well as a 300 MW hybrid storage project.

**2. PIF projects will be negotiated (70%):** They are intended to develop the local manufacturing industry, balanced by the need to generate economical electric power, currently has one PV project under active development - Sudair (2.2 GW), which will be implemented in two phases:

2021	2022
Round 1 which (1.5 GW) was announced by HRH the Crown Prince in April 2021.	Round 2, expected to be announced in Q2 2022, will comprise two PV projects: Shuaiba II (2.1 GW) and Rabigh II (300 MW).

All NREP projects sign a Power Purchase Agreement with the Saudi Power Procurement Company (SPPC) – the Kingdom’s “Principal Buyer” – whereby 100% of the electricity produced will be purchased at a fixed price for 20 to 25 years.





## Other non-NREP utility-scale projects



The Kingdom's giga projects (NEOM, Red Sea Development, Amaala, and Qiddiya) are all planned to be powered by renewable energy, although precise details (capacity, technology, timeline) are yet to be known. A Joint Venture between NEOM, ACWA Power, and Air Products (USA) is currently developing a 1.2 Million ton/year-green hydrogen/ammonia plant powered by 4 GW of wind and solar PV.



نيوم NEOM





# Main Players in renewable energy sector in the Kingdom

## Government Stakeholders

01

### Ministry of Energy:

Responsible for the tendering 30% of NREP project pipeline and the localization of the energy sector in coordination with the Ministry of Investment and the National Industrial Cluster Program (NIDC).



02

### Ministry of Industry and Mineral Resources:

Supports the development of the manufacturing sector through licensing, land allocation, and other supporting services.



03

### Water & Electricity Regulatory Authority (WERA):

Develops and implements regulations for the connection of distributed generation projects to the Grid; issuer of Generation Licenses where required.



04

### Saudi Power Procurement Company (SPPC):

The off-taker (counterparty in the Power Purchase Agreements or PPA) for all electricity generation projects including Renewable Energy (RE).





# Overview of Renewable Energy Local Projects



The local RE manufacturing sector is still in its infancy with the two completed utility-scale RE projects having been constructed using imported equipment. There are a number of manufacturers which have just recently started production or are under development and these are expected to supply MoE Round 4 onwards and the PIF project pipeline. A bright exception is the module mounting system used in the Sakaka PV plant where all the precision steel components were produced locally.



## SIDF's Role in Supporting the Sector

In September 2019, SIDF launched its Mutajadedda Program to finance the three pillars of the renewable energy ecosystem



### 01

#### **Component Manufacturing.**

for components identified as localization priorities by MoE:

- Wind turbine towers
- nacelles, blades
- solar PV module assembly
- solar inverter assembly
- PV mounting systems

### 02

#### **NREP IPP Projects**

### 03

#### **Distributed Generation IPP Projects**

On-grid and off-grid projects for the commercial and industrial sectors (mall rooftops, factory power plants, etc.)

Preferential terms include longer repayment periods (up to 12 years), grace periods (up to 36 months), and financing of up to 75% of project cost. To date, SIDF has approved loans for over SR 500 Million to the RE sector.





# SWOT Analysis





08

**In Focus:**

The Fourth Industrial  
Revolution in the  
Kingdom





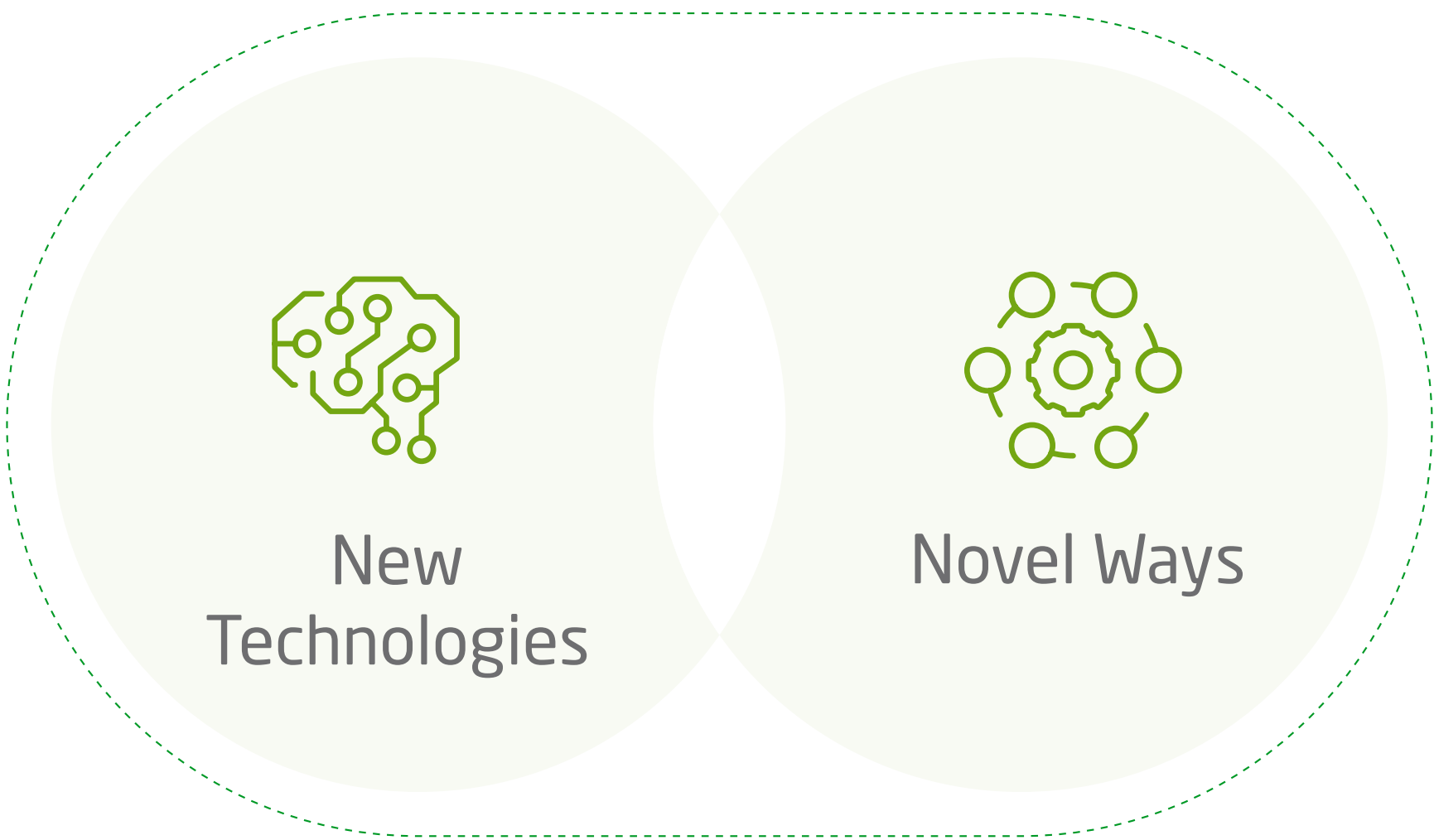
# The Fourth Industrial Revolution in the Kingdom



## Introduction

The Fourth Industrial Revolution first emerged as a phrase by scientists working on developing a high-tech strategy for the German government. Subsequently in 2015, Klaus Schwab, executive chairman of the World Economic Forum (WEF), introduced the phrase to a wider audience. The term represents the fourth major industrial period since the First Industrial Revolution of the 18th Century. A subset of the Fourth Industrial Revolution is Industry 4.0, often referred to as I4.0, and is a concept of networked connectivity and advanced data analytics, combined with cutting edge technologies, Artificial Intelligence, Additive Manufacturing, Augmented Reality, etc., to create flexible and dynamic automated smart factories.

Interconnected & Interdependent



## What is an Industrial Revolution?

One definition is the application of new technologies and novel ways of doing things that are interconnected and interdependent and result in a transformation of both economics and society.







Industry 4.0 is at an early stage, however, governments around the world have recognized the importance of adoption of the new manufacturing concepts in order to capitalize on the potential and have thus established strategic initiative programs, such as:

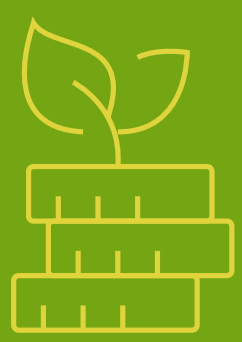


These strategic initiatives are supported by multi-faceted networks of stakeholders including companies, associations, academia, and policymakers to drive the country's Industry 4.0 mission forward.

The Global market for industry 4.0 was valued at SR 430 Billion (USD 114.55 Billion) in 2021 and is projected to reach SR 1,414.87 Billion (USD 337.30 Billion) by 2029, at a CAGR of 19.4%.\*



**430** SR Billion  
Global Market Value  
of the Industry 4.0  
in 2021



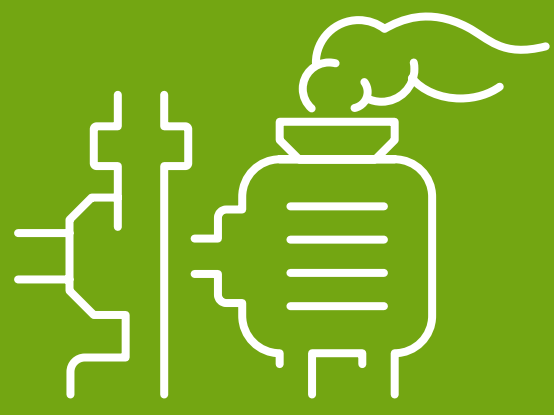
**1,415** SR Billion  
Global market value  
forecast for the Industry 4.0  
in 2029

\* Source: <https://www.fortunebusinessinsights.com/industry-4-0-market-102375>





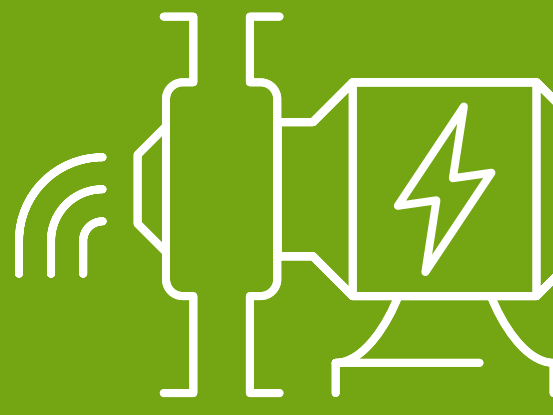
# The Evolution of Industrial Revolutions



1760-1830

## 1st Industrial Revolution

The development and evolution of mechanical production facilities initially powered by water and later using steam, which brought about a major change in productivity and a transition from an agricultural to an industrial society. Whilst machines performed work tasks, processes were labor-intensive.



1870-1914

## 2nd Industrial Revolution

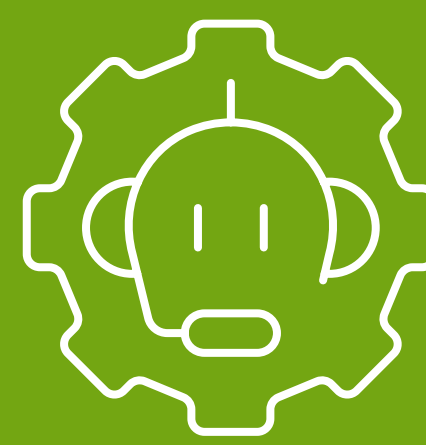
Electricity and the Electric Motor replaced water and steam as the primary source of power. The new energy source provided decentralized motive power for individual machines, which enabled focus on the sequential order of production machines and led to the creation of the moving assembly line and the concept of mass production, laying in many ways the foundations for the future development of Lean manufacturing methodologies. The revolution resulted in a reduction in labor intensity, accelerated production, and cost reduction.



1969-2015

## 3rd Industrial Revolution

The invention of electronic components, transistors, integrated circuits and the microprocessor paved the way for the concept of the Programmable Logic Controller (PLC) in 1968. The PLC changed the automation industry forever, enabling evermore complex tasks to be performed repetitively by machines. The miniaturization of electronics, development of sensors, Human Interaction devices, robotics and vision systems complemented the PLC and provided increasingly autonomous machines to supplement or replace operators. In parallel to shop floor automation, computers and software systems evolved to manage business processes. They initially focused on Material Requirements Planning (MRP) and further developed into Enterprise Resource Planning (ERP), to assist humans to plan, schedule, and track product flow through factories.



2022

## 4th Industrial Revolution Today

This revolution encompasses an array of emerging technologies such as artificial intelligence, nanotechnology, quantum computing, biotechnology, materials science, energy storage, the Internet of Things (IoT), decentralized decision-making, fifth-generation wireless technologies (5G), additive manufacturing, 3D printing, advanced robotics, virtual reality, augmented reality, and autonomous vehicles.

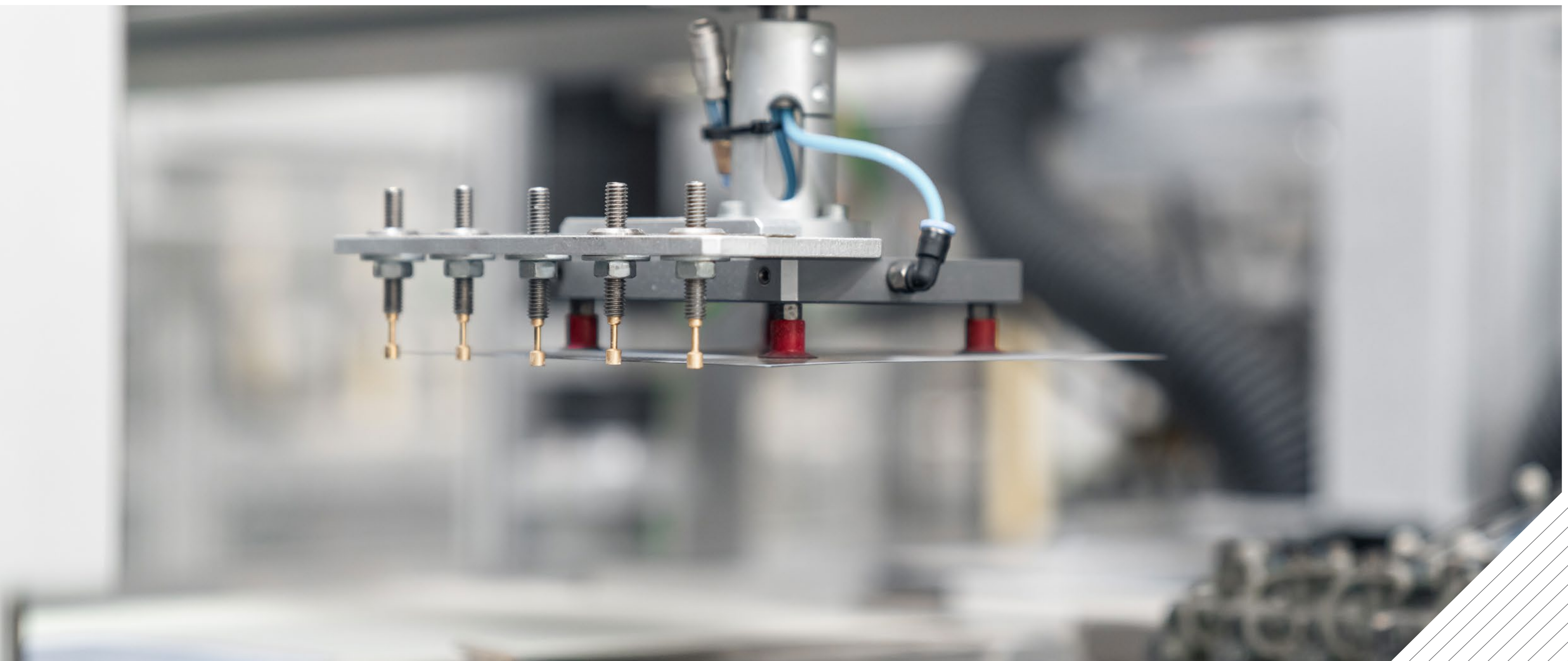
Applications of the technologies of the Fourth Industrial Revolution have relevance across the entire spectrum of the business world including industry, finance, retail, transport & logistics, government, ecosystems - Smart Grid Energy and the Smart City, etc. The impact is widespread and plays a role in multiple aspects of human life.

Industrial technology has continuously evolved from the start of the first revolution, the defining period within each previous revolution being the confluence of inter-related and inter-connected new technologies and novel ways that transformed economics and society.

Some of the major components of each of the previous revolutions have continued to evolve and maintain a presence in the 4th Industrial revolution of today. Main examples being mechanization and steam power from the 1st revolution, electricity and logical production processes (Lean manufacturing foundations) from the 2nd revolution, and computerized manufacturing (PLC's, ERP systems) from the 3rd revolution.



## The Role of the World Economic Forum



Since 2016, the World Economic Forum (WEF) has set a consistent theme of promoting the Fourth Industrial Revolution.

### Centre for the Fourth Industrial Revolution (C4IR)

The WEF has been instrumental through its Centre for the Fourth Industrial Revolution (C4IR) in the development of a global network of C4IR seeking to maximize the benefits of the revolution through the collaboration of stakeholders at the local and regional level.

In Saudi Arabia, King Abdulaziz City for Science and Technology (KACST) is the local C4IR host institution. It aims to maximize the technological benefits to Society and minimize risks associated with 4IR technologies through facilitation of the design, analysis, and involvement in governance protocols and policy frameworks. The center was launched in April 2020 and focuses on Artificial Intelligence (AI), Internet of things (IoT), Smart Cities, Autonomous Vehicles, Drones, and Blockchain.

### Advanced Manufacturing Hubs

The trends regarding the 4th Industrial Revolution (4IR) have a common theme globally but regional variations exist regarding government policies, workforce skills, infrastructure, etc. The WEF provides a platform for a global network of Advanced Manufacturing Hubs (AMHUBs) to aggregate and accelerate regional efforts to adapt to the future of Advanced Manufacturing triggered by 4IR technologies.

SIDF is the host organization for the AMHUB in the Kingdom and is actively engaging with various stakeholders, government entities, Academia, KACST (as the local center for C4IR), industrial sector businesses, and suppliers of I4.0 technology. SIDF aims to drive success in the industrial sector by promoting investment opportunities to strengthen local industry and enhance operational performance.



# Lighthouse Networks

In 2018, the World Economic Forum launched an initiative in collaboration with McKinsey & Company to identify manufacturers that have taken 4IR technologies from pilot schemes to full scale integration. The network is a platform for cross-company learning and collaboration to develop, replicate, and scale innovations.



## Geographical Area of Lighthouse Factories\*

The lighthouses are being true guiding lights (beacons) for the world and showing the benefits of IR4 and setting new benchmarks in productivity, sustainability, agility, speed to market, and customization. The number of lighthouse factories continues to grow. As of September 2021, there are some 90 recognized lighthouse factories.

In Saudi Arabia, Saudi Aramco has three WEF-recognized lighthouse sites: Abqaiq Oil Processing Facility, Uthmaniyah Gas Plant, and Khurais Oil Complex. Saudi Aramco is pioneering the large-scale use of 4IR technologies, Artificial Intelligence, Industrial Internet of Things, Automation, and Robotics that are setting new benchmarks and achieving significant improvements in cost, efficiency, product quality, energy consumption and environmental performance.

\*Data source - World Economic Forum



# Smart Industry Readiness Index (SIRI)



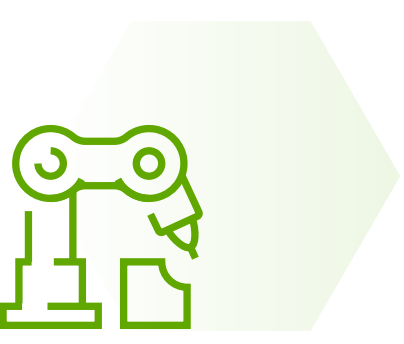
Building Blocks	Pillars	Dimension
Process	Operations	Vertical Integration
	Supply Chain	Horizontal Integration
	Product Lifecycle	Integrated Product Lifecycle
Technology	Automation	Shop Floor
		Enterprise
		Facility
	Connectivity	Shop Floor
		Enterprise
		Facility
	Intelligence	Shop Floor
		Enterprise
		Facility
Organization	Talent Readiness	Workforce Learning & Development
		Leadership Competency
	Structure and Management	Inter- and Intra-Company Collaboration
		Strategy & Governance



The WEF supports the International Centre for Industrial Transformation (INCIT), an international organization focused on global thought leadership and innovation in global manufacturing transformation. INCIT is responsible for managing and expanding the Smart Industry Readiness Index (SIRI), a quantitative framework to evaluate and benchmark manufacturing facilities as companies embark on their Industry 4.0 transformation journey. It forms part of the WEF platform for Shaping the Future of Advanced Manufacturing Value Chains. The aim is to build the largest data set in the world in order to provide benchmarks on the state of manufacturing globally.

The SIRI was created by the Singapore Economic Development Board in partnership with a network of leading technology companies, consultancy firms, and industry and academic experts. SIRI comprises a suite of frameworks and tools to help manufacturers, regardless of their size and sector, to start, scale, and sustain their manufacturing transformation journeys. SIRI covers three core elements of Industry 4.0: Process, Technology, and Organization, and assesses status in 16 Dimensions or Areas.

The aim of the SIRI assessment is to enable companies to:



Understand the current state of manufacturing plants/facilities

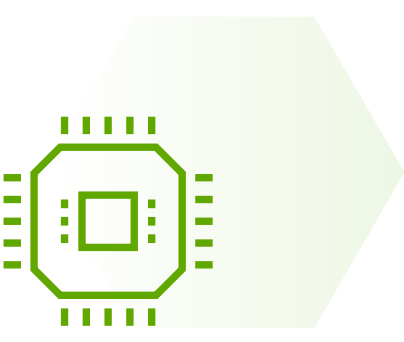


Identify high impact areas for improvement



Benchmark against industry peers

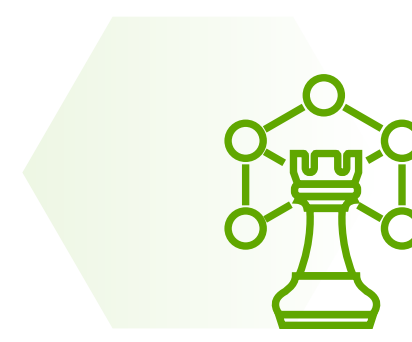
The Index has been adopted by both multinational corporations (MNCs) and small and medium enterprises (SMEs). Currently, Official SIRI Assessment (OSA) data has been collated for nearly 600 manufacturing companies across 30 countries. The data provides the following main indicators:



The Semiconductor, Electronics and Pharmaceutical sectors are leading the way in the digital transformation of manufacturing followed by Energy & Chemicals (Downstream) and Logistics.



Digitally mature companies are focusing on connectivity and digital process integration.



Productivity and quality-linked performance indicators are key focus areas for both MNCs and SMEs and that flexibility and speed are fast-emerging priority areas



There is a high level of diversity across Industry sectors.



Data confirms SME-dominated sectors are less mature than MNC sectors.



Average manufacturers are seeking to digitize operational processes.



MNCs and companies ahead of the maturity curve are more likely to plan for the long term.



Manufacturers need to place more emphasis on strategy and workforce training.



## KSA National Productivity Program



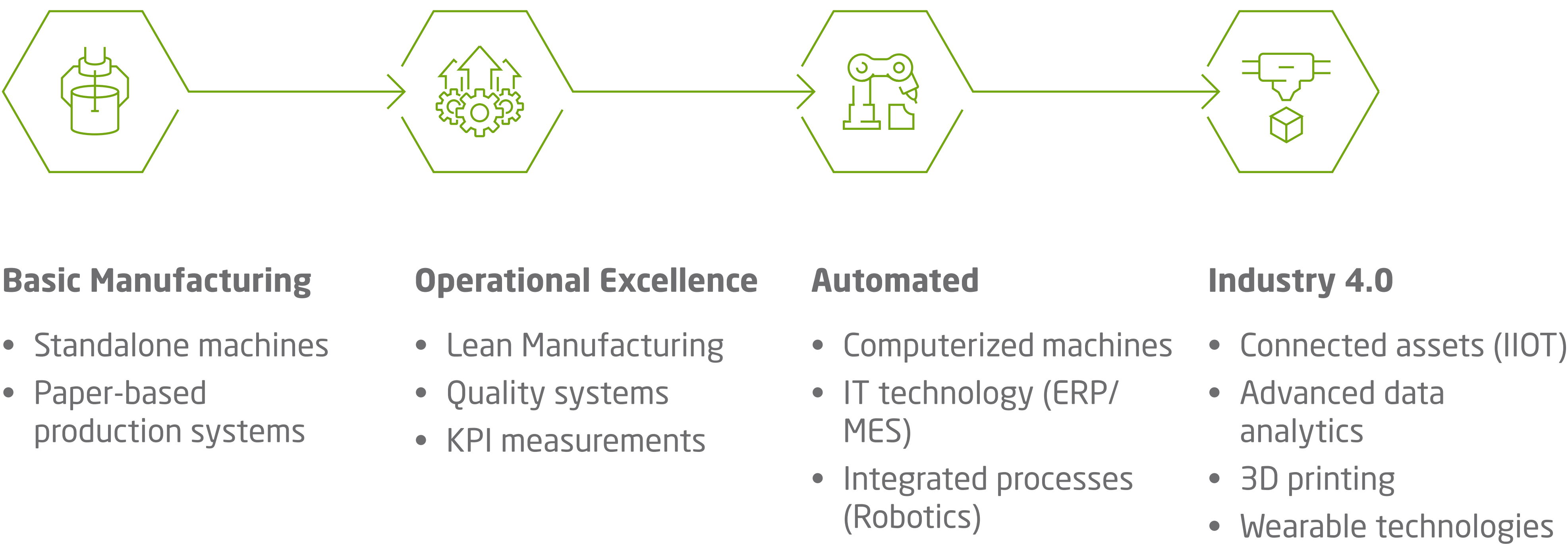
As part of the National Productivity Program in the Kingdom, and in cooperation with SIDF and KACST, MODON embarked on a program of evaluating 100 non-oil industrial factories to improve local output focusing on productivity and efficiency. The program commenced in April 2019 with the aim of developing transformation strategies in operational excellence and Industry 4.0 technologies. The initial 20 assessments were conducted by General Electric and subsequent assessments have been conducted by McKinsey & Company. To date, more than 60 factories have been assessed. The SIRI framework was used in the majority of assessments to benchmark the current state of digitalization for factories.



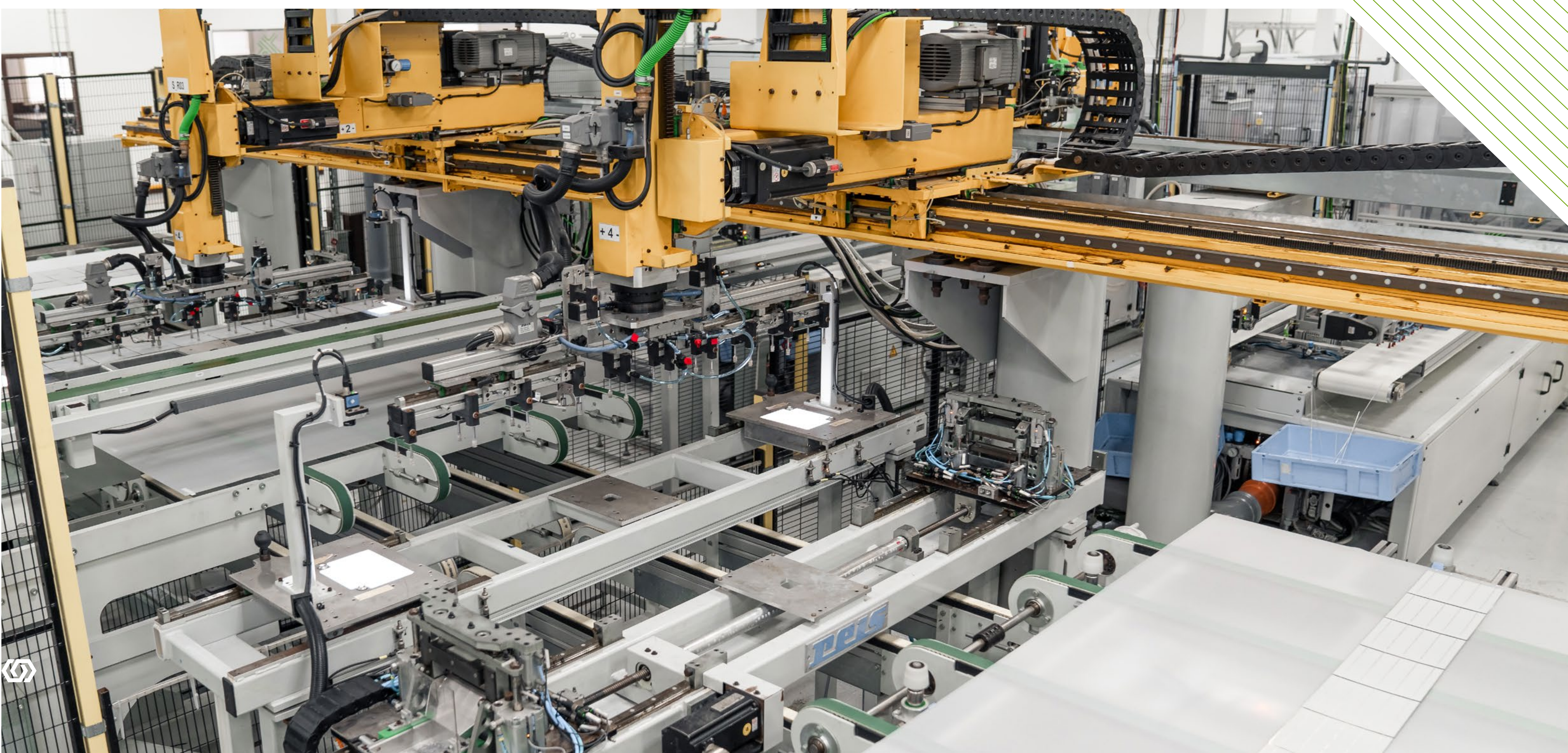
# KSA Development Path to I4.0

Globally, the adoption of Industry 4.0 presents challenges for many companies across the spectrum of Industrial sectors. The challenges to adoption in the Kingdom are no different from those facing companies elsewhere in the world.

SIRI assessments provide a comprehensive view of the current state of a factory digitalization, and results can be interpreted into a more simplified state of maturity of Basic Manufacturing, Operational Excellence, Automation, and Industry 4.0.



The adoption of I4.0 technology has a pre-requisite of having good operational practices in order to provide initial data from which I4.0 solutions can learn and further optimize performance. Additionally, the adoption of I4.0 technology is less of a challenge from a suitably mature automated platform with computerized machines, IT business systems, Enterprise Resource Planning (ERP), and Manufacturing Execution Systems.





# Implementation Path to I4.0

The implementation of Industry 4.0 for any individual company or factory depends upon the starting point but the methodology of implementation is the same process. Transition to Industry 4.0 requires knowledge of Industry 4.0 technologies and methods, understanding of a company/factory's current digitalization state, development of a strategy, implementation of a plan, and learning from the experience.



## Learn

- Principles
- Concepts
- Technologies

## Evaluate

- SIRI Assessment
- Understand Current state of facilities and readiness level

## Architect

- Develop transformation strategy
- Implementation roadmap
- Infrastructure, systems and processes

## Deliver

- Monitor progress
- Assess impact
- Sustain benefits
- Identify new opportunities

The MODON 100 factories program suggests that many of the companies assessed to date would benefit from developing Operational Excellence, a pre-requisite for progressing to an industry 4.0 manufacturing environment.

Implementation of Industry 4.0 is a continuous journey. The first step for any company is to understand its current state of digitalization in order to develop a strategy and a plan to move forward. A SIRI assessment provides the necessary details to enable the development of a roadmap to implement Industry 4.0.

# Major Technology Implementations

Globally, the main technology solutions that are being used in I4.0 and are applicable in KSA are:



01

Advanced Analytics  
(Big Data)



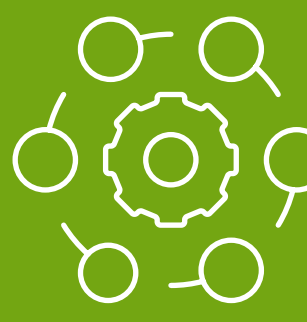
02

IIOT connectivity and  
cloud-based solutions



03

Artificial Intelligence -  
Predictive analysis for sales,  
stock control, production,  
and maintenance activities



04

Digital Twins - The simulation  
and optimization of factory  
environment, Product  
Lifecycle Management



05

Wearable technology  
(Augmented Reality) -  
Suitable for assembly and  
maintenance activities





# Industry 4.0 Benefit

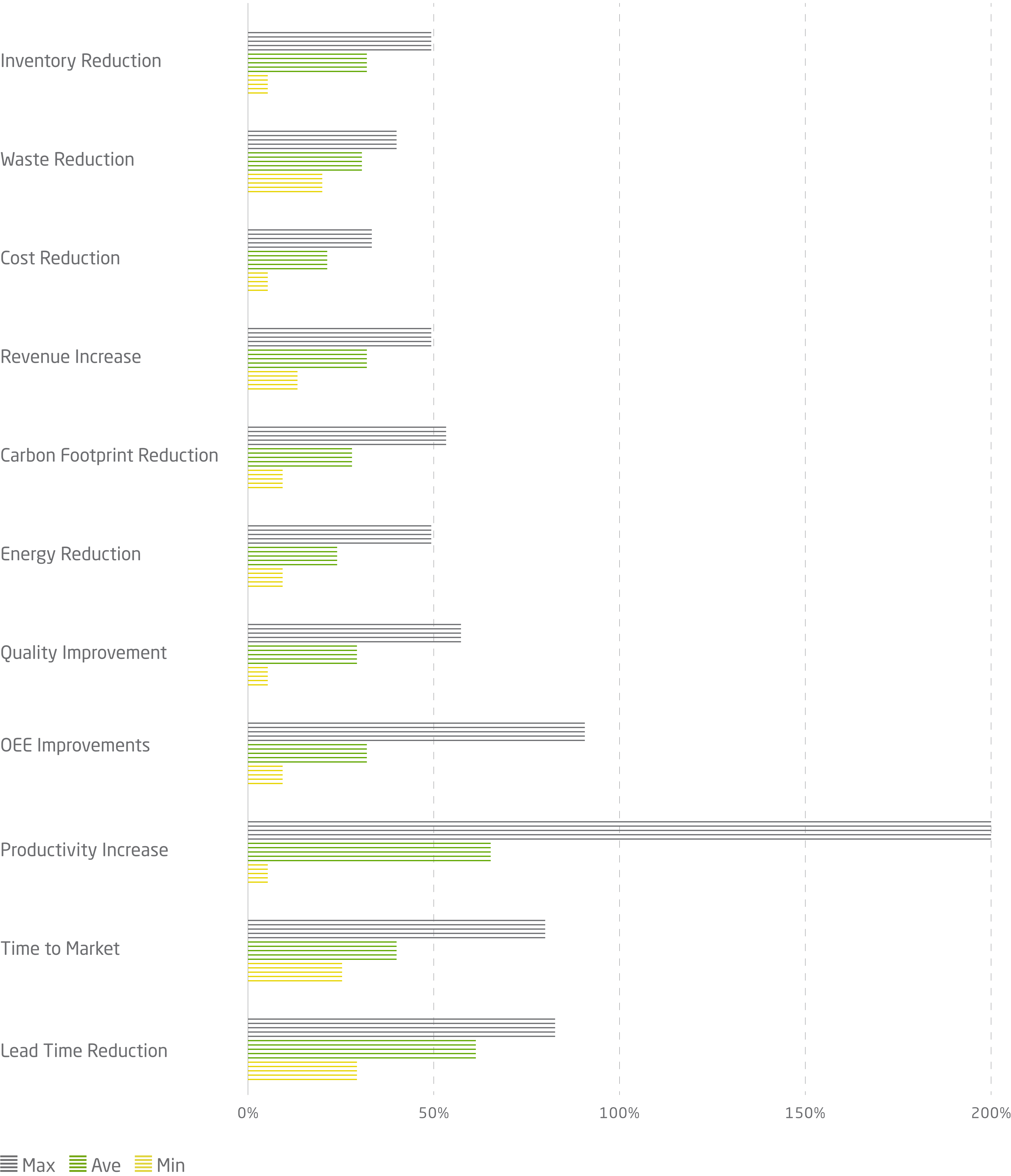
Industry 4.0 provides benefit across all areas of manufacturing. The value and type of benefit achieved is company-dependent and specific to the targeted areas of performance improvement. Lighthouse projects across a range of Industries have achieved a variety of benefits:

Improvements in:

- Productivity
- OEE
- Quality
- Revenue

Reductions in:

- Costs
- Waste
- Inventory
- Carbon footprint
- Time-to-market
- Lead times





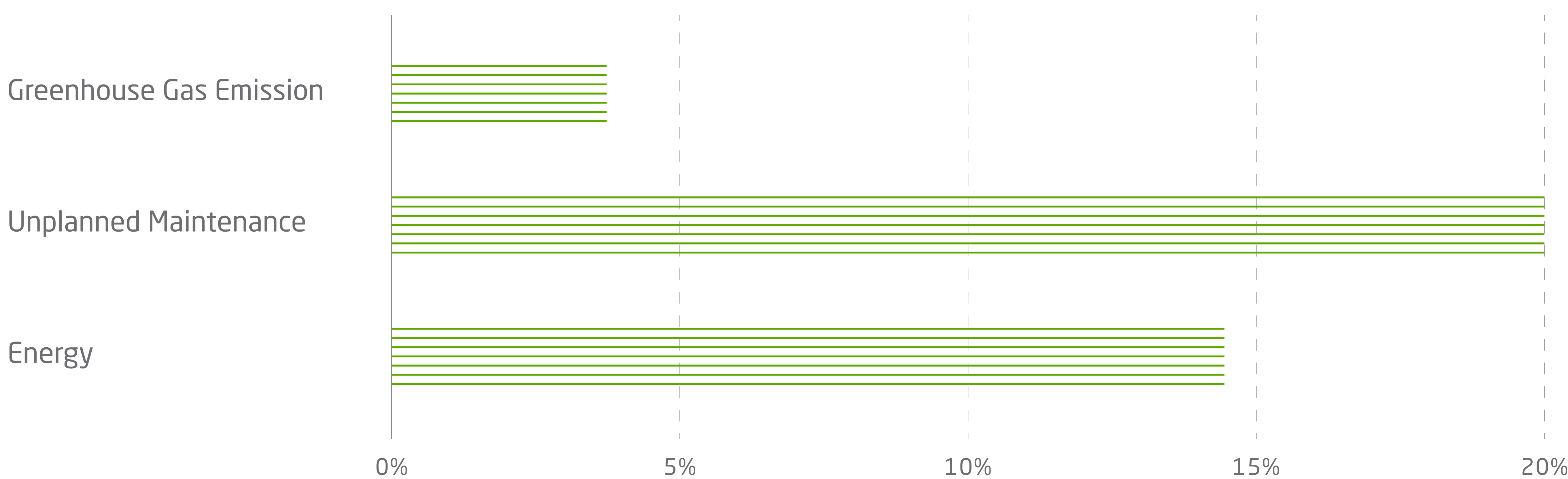


# Saudi Aramco - Benefit Examples

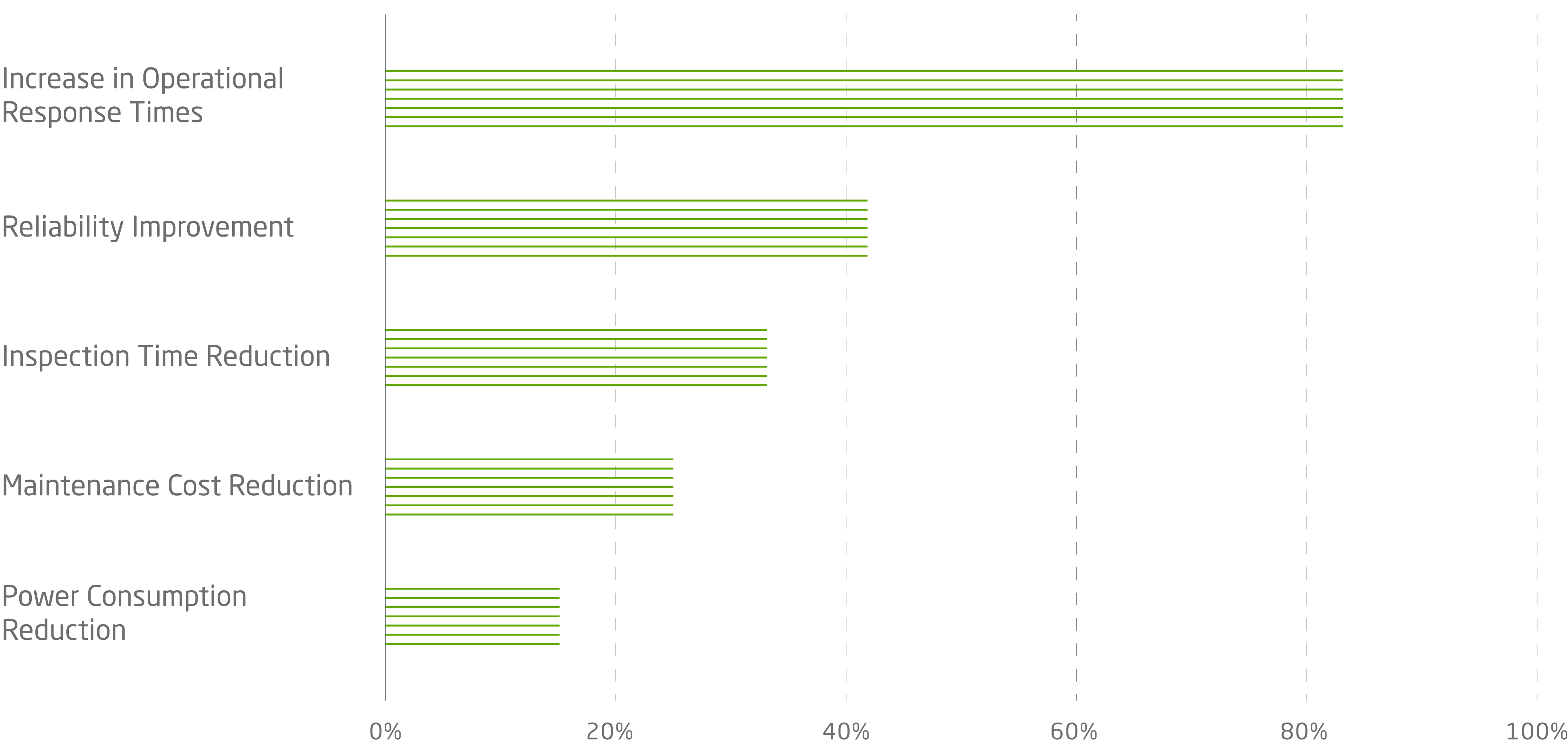
Abqaiq Facility is utilizing I4.0 technologies, such as machine learning, data analytics, AI-powered algorithms, smart unmanned aerial vehicles, and robots in order to improve efficiency and safety.

The Khurais facility utilizes the Industrial Internet of Things (IIoT), digital twin technology, Big Data analytics, machine learning, and smart sensors to reduce overall power consumption by 18%, reduce maintenance costs by 30%, cut inspection times by 40%, improve reliability by 50%, and increase operational response times by 100%.

## Reduction %\*



## Benefit %\*\*



\* Source: <https://www.aramco.com/en/magazine/elements/2021/welcome-to-the-future-of-industry>  
\*\* Source: <https://www.weforum.org/agenda/2020/09/how-the-4ir-is-driving-a-new-wave-of-energy-innovation>



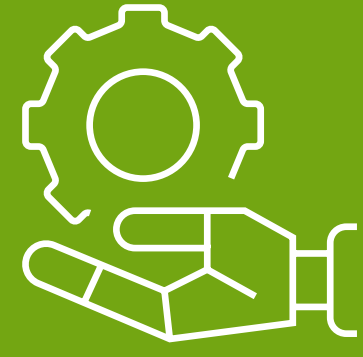


# Challenges

The main challenges in transitioning to widespread implementation of I4.0 in the Kingdom are:



Increasing levels of Operational Excellence and Automation.



Developing awareness of I4.0 technologies and their potential benefits.



Understanding the starting position and the current state of digitalization

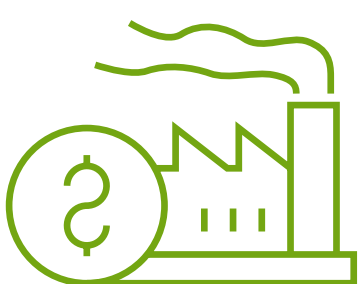


Creating a talent base of suitably skilled personnel for the implementation and operation of Industry 4.0 solutions.

These challenges are not restricted to the Kingdom but are in fact global challenges faced by all companies.

## The Role of SIDF

Finance enabler for I4.0 applications in the industrial sector. SIDF offers enhanced loan terms and conditions for Industrial Digital Transformation (I4.0), Automation, and Energy efficiency projects under the Tanafusiya Program.

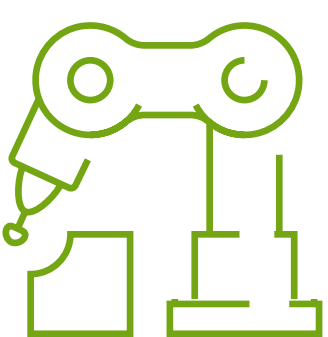


Assessment of evaluations and financing of projects completed under the MODON 100 factories program



Provision of a number of advisory services:

- Operational Excellence
- Lean Manufacturing
- IDT and Automation projects



Actively engaging with stakeholders in the ecosystem as the host of the Advanced Manufacturing Hub in the Kingdom.



# Summary

The Fourth Industrial Revolution is just beginning and holds great promise for major changes both economically and socially in the Kingdom, from smart cities such as NEOM and Smart Grid energy solutions to the transformation of the industrial landscape. Within the industrial sector in Saudi Arabia, migration of factories from the current state, whether that is basic manufacturing, Operational Excellence, or Automated, to a smart I4.0 factory is a journey supported by stakeholders at all levels of the Kingdom’s ecosystem, using similar facilitation models as other major industrialized economies.

SIDF is not just the finance enabler for companies embarking on the journey to I4.0, it is a driver of the AMHUB to promote excellence in manufacturing and offers advisory services to assist in the improvement of the Industrial Sector. The starting point for all companies is an understanding of their current digitalization state.

The SIRI assessment tool is one method of defining the start point and also of providing indicators for appropriate development. Companies that have already embraced industry 4.0 have demonstrated that the technology provides significant benefits. SIRI assessments conducted to date under the MODON 100 program indicate that the digitalization state of factories in the Kingdom, within the Machinery & Equipment and General Manufacturing sectors, is on average, comparable to the state of factories elsewhere in the world. The challenge in the Kingdom, with the help of the ecosystem, is now to progressively migrate the manufacturing landscape from its current state to an I4.0 advanced manufacturing platform.







# Appendix - Supplementary Data

## Saudi Aramco I4.0 Technology



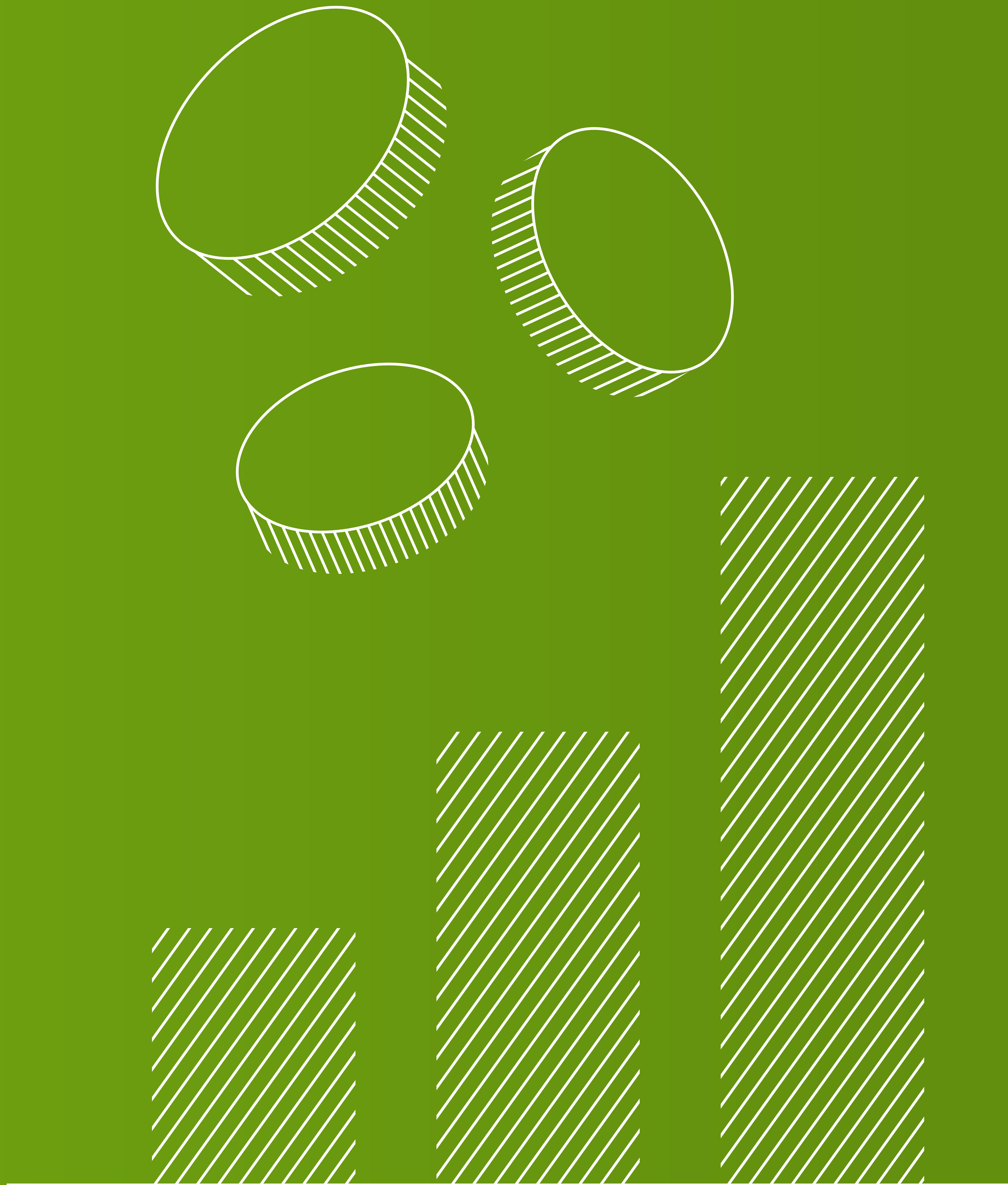
	Application	Benefits
Khurais Oil Field	<ul style="list-style-type: none"><li>• Application: Smart Oil Field</li><li>• Advanced Data Analytics (Big Data), Artificial Intelligence (AI)</li><li>• Digital Twins</li><li>• Robotics</li><li>• Automation</li></ul>	<ul style="list-style-type: none"><li>• 21% increase in quality</li><li>• 14.5% reduction in energy use.</li></ul>
Uthmaniyah Gas Plant	<ul style="list-style-type: none"><li>• Application: Maintenance Inspections</li><li>• Advanced Analytics (Big Data), Artificial Intelligence (AI).</li><li>• Drones for inspections</li><li>• Wearable technologies - digital helmets to assist inspections by workers.</li></ul>	<ul style="list-style-type: none"><li>• 90% reduction in inspection times</li></ul>
Abqaiq Oil Processing	<ul style="list-style-type: none"><li>• Application: Energy Management</li><li>• Advanced Analytics (Big Data)</li><li>• Artificial Intelligence (AI).</li></ul>	<ul style="list-style-type: none"><li>• Unknown</li></ul>





09

# Lending Activity Statistics







# Lending Activity Statistics

## Value of Cumulative Approved Loans, Disbursed, and Repaid Amounts (SR Million)

Year	Repaid Amounts	Disbursed Amounts	Approved Amounts
1433/1434H (2012)	41,526	70,636	105,415
1434/1435H (2013)	45,886	75,592	112,095
1435/1436H (2014)	50,346	81,276	117,987
1436/1437H (2015)	54,333	88,444	129,425
1437/1438H (2016)	59,333	94,821	137,367
1438/1439H (2017)	63,631	102,240	147,938
1439/1440H (2018)	68,688	111,629	157,378
1440/1441H (2019)	73,777	120,840	169,878
1441/1442H (2020)	77,051	125,490	187,495
1442/1443H (2021)	83,524	135,652	198,607*

\* Of which SR 27.1 Billion were terminated or reduced.

## Number and Value of Approved Loans, by KSA Regions

Region	Throughout (1442/1443H) 2021		Cumulative Total	
	Number	Value (SR Million)	Number	Value (SR Million)
Riyadh	42	702	1722	31,496
Makkah	29	5,645	1143	37,755
Medina	8	276	238	21,498
Eastern Region	30	4,266	1280	82,226
Al-Qassim	1	28	119	2,676
Asir	3	24	76	1,322
Tabuk	0	0	25	862
Hail	3	91	51	2,448
Jazan	0	0	45	13,193
Najran	0	0	34	1,381
Al-Baha	0	0	19	103
Al-Jawf	1	80	25	306
Northern Borders	0	0	15	3,312
Multi Regions	0	0	1	29
Total	117	11,113	4,793	198,607*

\* Of which SR 27.1 Billion were terminated or reduced.







## Number and Value of SIDF Approved Loans, by Industrial Sub-sectors

Sector	Throughout (1442/1443H) 2021		Cumulative Total	
	Number	Value (SR Million)	Number	Value (SR Million)
<b>Consumer Industries</b>	<b>32</b>	<b>621</b>	<b>1346</b>	<b>27,446</b>
Food	18	487	646	16,753
Refreshments And Drinks	1	0	124	2,341
Fabric	4	48	143	2,694
Leather Products And Alternative Materials	0	0	26	137
Wood Products	3	20	29	290
Wooden Furniture	3	29	89	636
Paper Products	3	35	249	4,377
Printing	0	0	40	218
<b>Chemical Industries</b>	<b>31</b>	<b>1,841</b>	<b>1349</b>	<b>94,007</b>
Chemicals	13	478	636	79,245
Oil And Gas Products	3	1,199	84	6,608
Rubber Products	1	15	32	913
Plastic Products	14	150	597	7,241
<b>Building Materials Industry</b>	<b>3</b>	<b>69</b>	<b>703</b>	<b>27,227</b>
Ceramic Products	1	4	44	2,221
Glass Products	0	0	123	3,806
Cement Industry	0	0	48	12,685
Other Building Materials	2	65	488	8,515
<b>Engineering Industries</b>	<b>34</b>	<b>8,415</b>	<b>1208</b>	<b>41,830</b>
Metal Products	22	3,077	768	25,939
Machines And Machines	5	78	137	1,679
Electrical Equipment	3	71	216	3,915
Transportation Equipment	4	5,190	87	10,297
<b>Other Industries</b>	<b>17</b>	<b>166</b>	<b>187</b>	<b>8,097</b>
<b>Total</b>	<b>117</b>	<b>11,113</b>	<b>4793</b>	<b>*198,607</b>

\* Of which SR 27.1 Billion were terminated or reduced.







Value of Loans Approved During Each Year, by industrial sector

Sector	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Chemical Industries	4,125	2,047	1,535	6,674	744	6,798	6,434	10,631	15,224	1,841
Engineering Industries	1,942	855	2,174	756	4,420	2,223	449	375	561	8,416
Consumer Industries	2,287	1,330	1,017	1,621	1,086	1,213	1,731	861	530	621
Building Materials Industry	1,194	2,257	510	680	1,425	144	302	89	341	69
Other Industries	392	191	656	1,707	267	193	524	544	961	166
Total	9,940	6,680	5,892	11,438	7,942	10,571	9,440	12,499	17,617	11,113

Cumulative Value of Approved Loans, Classified According to the Sector of the Industry

Sector	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Chemical Industries	42,078	44,126	45,661	52,335	53,079	59,877	66,311	76,941	92,166	94,007
Engineering Industries	21,602	22,457	24,631	25,387	29,807	32,030	32,479	32,854	33,415	41,830
Consumer Industries	17,436	18,766	19,783	21,404	22,490	23,702	25,434	26,295	26,820	27,446
Building Materials Industry	21,411	23,667	24,178	24,858	26,283	26,427	26,729	26,817	27,158	27,227
Other Industries	2,889	3,080	3,735	5,442	5,709	5,902	6,426	6,970	7,931	8,097
Total	105,415	112,095	117,987	129,425	137,367	147,938	157,378	169,878	187,490	*198,607

\* Of which SR 27.1 Billion were terminated or reduced.








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